



ANTENNA SYSTEMS,
ELECTRONICS AND ACCESSORIES
ANTENE, ELEKTRONIKA IN PRIBOR

ABOUT US

O NAS

ABOUT ISKRA

Iskra ranks among the leading Central European companies in the fields of energy, efficient installations, traffic, telecommunications, information technology and business solutions. We have long experience in developing and manufacturing devices, and wide engineering knowledge in realizing demanding projects in the fields of energy, industrial processes and information solutions. Our products and solutions are present in over 80 countries on all continents.

O ISKRI

Iskra je eno vodilnih vodilnih srednjeevropskih podjetij na področjih energetike, komponent s področja elektrotehnike, učinkovitih inštalacij, prometa, telekomunikacij, informatike ter varovanja, oskrbe in upravljanja poslovnih objektov. Imamo sedemdesetletne izkušnje pri razvoju in proizvodnji naprav ter bogato inženirsko znanje pri realizaciji najzahtevnejših projektov na področjih energetike, telekomunikacij, prometa in industrijskih procesov. Naši kupci so multinacionalke z različnih področij, ki segajo od težke industrije, energetike, bele tehnike do obnovljivih virov. S svojimi izdelki, storitvami in rešitvami smo prisotni v več kot 80 državah na vseh kontinentih.

ABOUT ANTENNAS SYSTEMS

The programme of antenna systems originates from the former company "Iskra Antene" with a history that goes back to 1955, the year of the foundation of the company "Elektron". From the start, the programme has been involved in products for radio, T.V. & telecommunications. We supply a comprehensive range of products for the reception of analogue and digital terrestrial & mobile telecommunication signals.

O PROGRAMU ANTEN

Njena zgodovina sega v leto 1955, ko je bilo ustanovljeno podjetje Elektron. Že vse od ustanovitve se je podjetje ukvarjalo z izdelki za radio, TV in mobilne telekomunikacije. Danes podjetje ponuja zaokroženo paleto izdelkov za sprejem analognih in digitalnih zemljskih signalov in signalov za digitalna omrežja.

MILESTONES

MEJNIKI



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ANTENNA SYSTEMS

ANTENSKI SISTEMI



All ISKRA antennas are optimized for best signals reception in the frequency band for which they are intended. A major feature of the antennas we produce is that they all have a built-in type »F« female connector for simple installation of the coaxial cable to the antenna.

Antennas are constructed with aluminium alloy type EN AW 3005 (AlMn1Mg0,5) H165, which has high mechanical strength and resistance to the most adverse weather & temperature variations throughout the world.

Other metal parts are made from hot galvanized steel that is corrosion resistant. Plastic components are UV resistant. That ensures quality and longevity of the product.

Antennas are individually packaged into PVC bags, some having a cardboard header with technical instructions for in store placement & visual product promotion.

We can also supply antennas which are packaged in the individual printed or plain cardboard boxes. Transport cardboard boxes are always unprinted, in brown colour. It's made from a stronger cardboard to sufficiently protect the antenna in transit from our warehouse to the customer. Transport cardboard box typically contains 5 or 10 antennas, depending on the product type and size.

Vse ISKRA antene so optimizirane za najboljši sprejem signalov na frekvenčnem pasu za katerega so narejene. Večji del anten ima vgrajen »F« ženski konektor za lažjo montažo koaksialnega kabla na anteno.

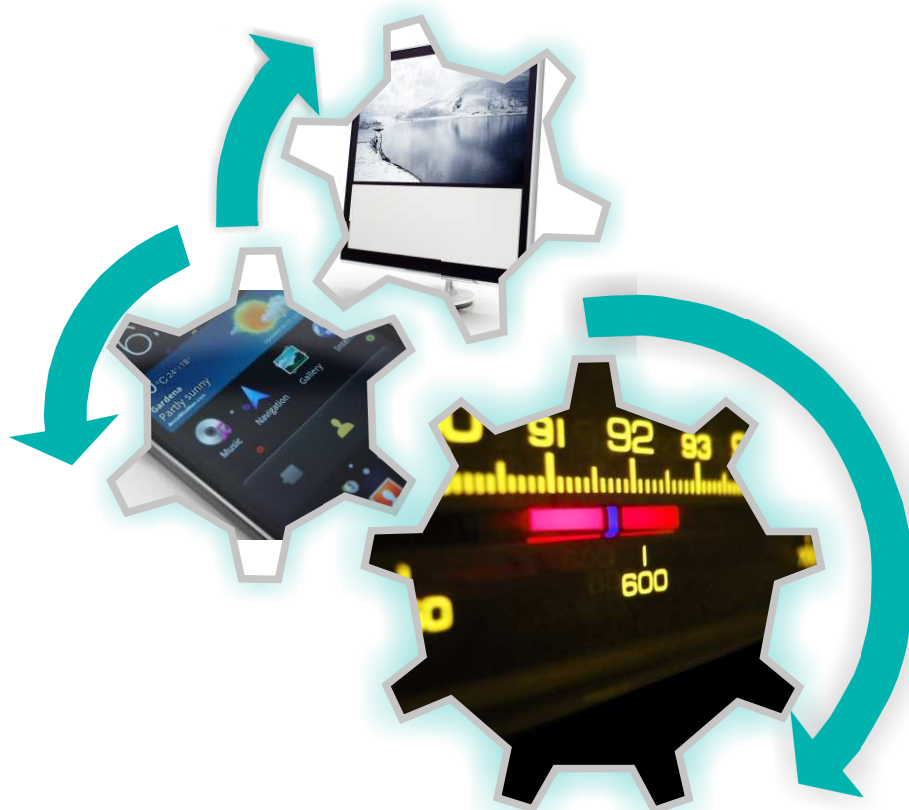
Antene so izdelane iz aluminijeve zlitine EN AW 3005 (AlMn1Mg0,5) H165, ki ima visoko mehansko čvrstost tudi v najbolj neugodnih vremenskih pogojih.

Ostali kovinski deli antene so iz vroče cinkanega jekla, ki je korozijsko odporen, plastične komponente pa so izdelane iz plastike, ki je UV obstojna. Njene lastnosti so vseh vremenskih pogojih nespremenljive.

Antene so posamično pakirane v PVC vrečkah, nekatere imajo priloženo obešanko za lažje obešanje antene na obešalo v trgovini. Nekatere antene se pakirane v nepotiskano ali potiskano posamično embalažo. Skupinska transportna embalaža je vedno nepotiskana, rjave barve. Izdelana iz močnejšega kartona, ki anteno dovolj zaščiti na poti od našega skladišča do kupca. V skupinski transportni embalaži je običajno 5 ali 10 anten.

TYPES / TIPI

- Radio Antennas
Radijske antene
- LOG Antennas
LOG antene
- YAGI Antennas
YAGI antene
- Indoor Antennas
Sobne antene
- Digital Networks Antennas
Antene za digitalna omrežja



RADIO ANTENNAS

RADIJSKE ANTENE

FM (87.5 - 108 MHz)
DAB (217 - 240 Mhz)
DAB+ (170 - 240 MHz)



FM-10 F



DAB+ FM F



FM-10 VF



FM-30 F

Impedance
Impedanca

75 Ohm

Polarization
Polarizacija

Horiz./Vert.

Mounting on mast
Montaža na drog

D=20-50 mm ... saddle 4 / sedlo 4 *
D=20-62 mm ... saddle 5 / sedlo 5 **

D - outside mast diameter /
zunanji premer droga

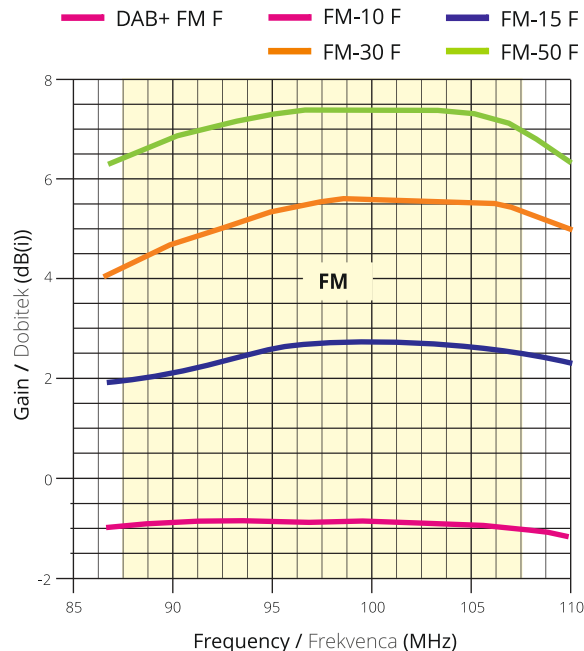
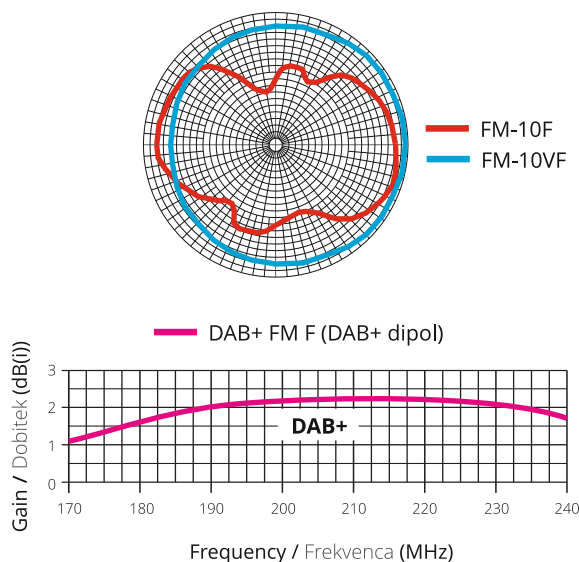
TECHNICAL DATA / TEHNIČNI PODATKI

Frequency Frekvenca	Type Tip	No. of elements Število elementov	Gain Dobitek	F/B ratio Razmerje naprej-nazaj	Beam width Širina glav. lista	Antenna carrier Nosilec	Length Dolžina antene	Packing Pakiranje		
								pcs. kom.	cm	m ³
FM	FM-10 F	1	-0.8 dB(i)	-	Horiz. 360°	18 x 18 *	-	1	53 x 28 x 9	0.013
								5	81 x 36 x 17	0.049
								10	111 x 34 x 27	0.102
	FM-10 VF	1	Horiz. -1 dB(i) Vert. -2 dB(i)	0 dB	Vert. 360°	18 x 18 *	-	5	81 x 36 x 17	0.049
								15	111 x 34 x 27	0.102
	FM-15 F	1	2.2 dB(i)	0 dB	Vert. 360°	18 x 18 *	-	5	146 x 22 x 18	0.058
								10	156 x 25 x 31	0.121
	FM-30 F	3	4.5 -5.5 dB(i)	10 - 15 dB	Horiz. 70° Vert. 110°	18 x 18 **	116 cm	1	145 x 14 x 13	0.026
								10	146 x 25 x 31	0.113
	FM-50 F	5	6.5 -7.5 dB(i)	18 - 24 dB	Horiz. 50° Vert. 70°	18 x 18 **	176 cm	1	145 x 14 x 13	0.026
10								148 x 33.5 x 33	0.164	
DAB+	DAB+ FM F	1+1	FM: -0.8 dB(i) DAB+: 2.2 dB(i)	0 dB	FM: -0.8 dB(i) DAB+: 2.2 dB(i)	18 x 18 **	-	10	71 x 59 x 61	0.256

* Antenna has saddle 4, without inclination, only horizontal polarization / Antena ima sedlo 4, brez inklinacije, samo horizontalna polarizacija

** Antenna has saddle 5, inclination 0-10°, horizontal or vertical polarization / Antena ima sedlo 5, inklinacija 0-10°, horizontalna ali vertikalna polarizacija

DIAGRAMS OF GAINS / GRAFI DOBITKOV



RADIO ANTENNAS

RADIJSKE ANTENE

FM (87.5 - 108 MHz)
DAB (217 - 240 MHz)
DAB+ (170 - 240 MHz)



DAB+ FM F



DAB+ 1 F



DAB-5 F



DAB+ 12 LOG F

Impedance Impedanca	75 Ohm	Polarization Polarizacija	Horiz./Vert.	Mounting on mast Montaža na drog	D=20-50 mm ... saddle 4 / sedlo 4 * D=20-62 mm ... saddle 5 / sedlo 5 **
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D - outside mast diameter /
zunanji premer droga

TECHNICAL DATA / TEHNIČNI PODATKI

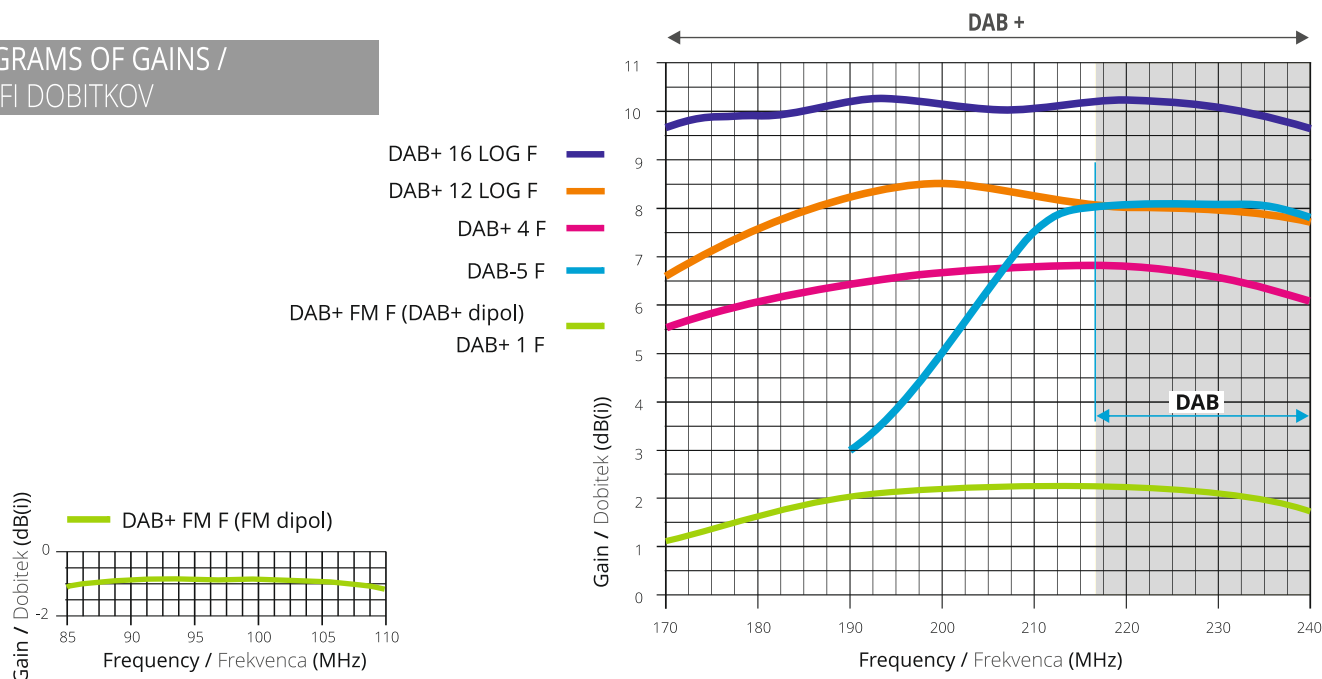
Frequency Frekvenca	Type Tip	No. of elements Število elementov	Gain Dobitek	F/B ratio Razmerje naprej-nazaj	Beam width Širina glav. lista	Antenna carrier Nosilec	Length Dolžina antene	Packing Pakiranje			
								pcs. kom.	cm	m ³	
YAGI	DAB	DAB- 5 F ***	5	8 dB(i)	19 - 26 dB	Vert. 65°	18 x 18 **	110.5 cm	10	141 x 25 x 24	0.085
		FM	DAB+ FM F	1 + 1	FM: -0.8 dB(i) DAB+: 2.2 dB(i)	0 dB	FM: 360° DAB+: 180°	18 x 18 **	-	10	71 x 59 x 61
	DAB+		DAB+ 1 F ***	1	2.2 dB(i)	0 dB	360°	18 x 18 **	25.5 cm	10	80 x 31 x 23
		DAB+ 4 F ***	4	5.5 - 6.5 dB(i)	14 - 18 dB	Vert. 65°	18 x 18 **	81 cm	10	111 x 23 x 27	0.069
LOG	DAB+	DAB+ 12 LOG F	12	7.5 - 8.5 dB(i)	20 dB	Horiz. 50° Vert. 60°	2 x 14 x 14 *	69 cm	5 10	90 x 70 x 17 90 x 79 x 17	0.107 0.113
		DAB+ 16 LOG F	16	10 dB(i)	22 dB	Horiz. 45° Vert. 55°	2 x 14 x 14 *	121 cm	1 10	122 x 87 x 7 157 x 89 x 17	0.026 0.262

* Antenna has saddle 4, without inclination, only vertical polarization / Antena ima sedlo 4, brez inklinacije, samo vertikalna polarizacija

** Antenna has saddle 5, inclination 0-10°, horizontal or vertical polarization / Antena ima sedlo 5, inklinacija 0-10°, horizontalna ali vertikalna polarizacija

*** It is possible to order antenna with active dipole (dipole (dipole with built-in amplifier) DIGI-YAGI 20 VD) or upgrade existing antenna with active dipole DIGI-YAGI 20 VD later.
Možno je naročiti anteno z aktivnim dipolom (dipol z vgrajenim ojačevalnikom) DIGI-YAGI 20 VD ali pa anteno nadgraditi z aktivnim dipolom DIGI-YAGI 20 VD kasneje.

DIAGRAMS OF GAINS / GRAFI DOBITKOV

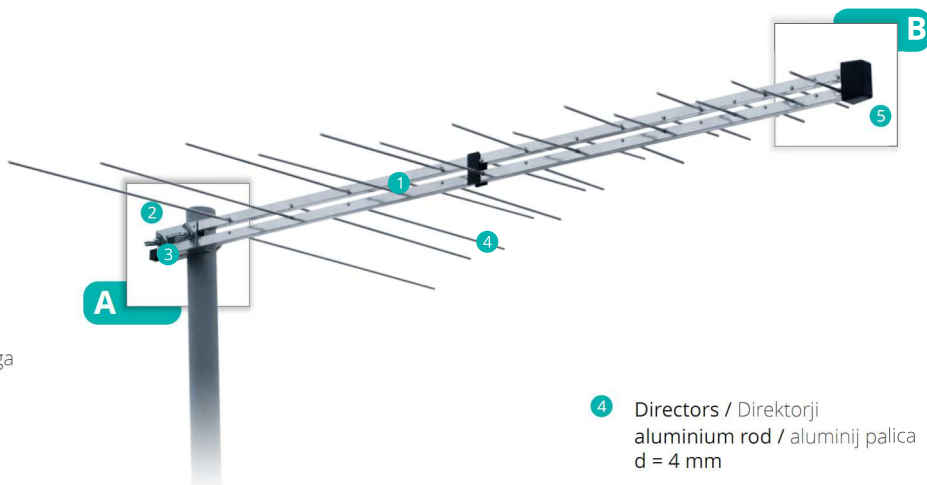


LOG ANTENNAS

LOG ANTENE

DESCRIPTION OF DIFFERENT VERSIONS OF LOG ANTENNAS OPIS RAZLIČNIH IZVEDB LOG ANTEN

- 1 Antenna carriers / Nosilca antene
aluminium tube / aluminij cev
14x14x0.7 EN AW 3005 (AlMn1Mg0.5) H165
- 2 Iron parts / Kovinski deli
hot galvanized steel / vroče cinkano jeklo
- 3 Fixing to mast / Pritrditev antene na drog
"U" screw M6 / "U" vijak M6
outside mast diameter / zunanji premer droga
D = 20 ... 50 mm



- 4 Directors / Direktorji
aluminium rod / aluminij palica
d = 4 mm
- 5 Plastics / Plastika
ABS UV resistant / ABS UV obstojna

STANDARD VERSION FOR MOUNTING ON MAST STANDARDNA IZVEDBA ZA MONTAŽO NA DROG

The standard version allow mounting the antenna on the mast only in horizontal position (for horizontal polarisation) without inclination. Antenna can be mounted in vertical position (for vertical polarisation) with mounting accessories **D2-V** (see page 46).

Standardna izvedba omogoča montažo antene na drog le v horizontalnem položaju (za horizontalno polarizacijo) brez inklinacije. Anteno lahko montirate na drog v vertikalnem položaju (za vertikalno polarizacijo) z uporabo dodatnega pribora **D2-V** (glej stran 46).



H/V VERSION FOR MOUNTING ON MAST H/V IZVEDBA ZA MONTAŽO NA DROG

The H/V version allow mounting antenna on the mast in horizontal position (for horizontal polarisation) or in vertical position (for vertical polarisation) without inclination.

Eg.: **P-2845 F H/V**

H/V izvedba omogoča montažo antene na drog v horizontalnem položaju (za horizontalno polarizacijo) ali v vertikalnem položaju (za vertikalno polarizacijo) brez inklinacije.

Npr. **P-2845 F H/V**



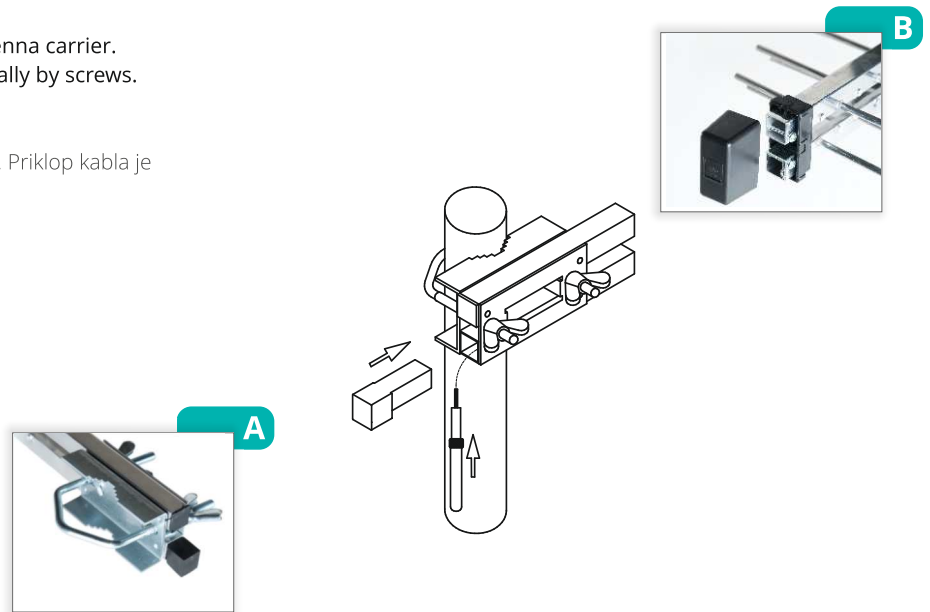
LOG ANTENNAS

LOG ANTENE

VERSION - WITHOUT "F" FEMALE CONNECTOR IZVEDBA - BREZ "F" ŽENSKEGA KONEKTORJA

The cable must be inserted into the bottom antenna carrier.
Coaxial cable is connected to antenna mechanically by screws.
Eg: **P-2845**

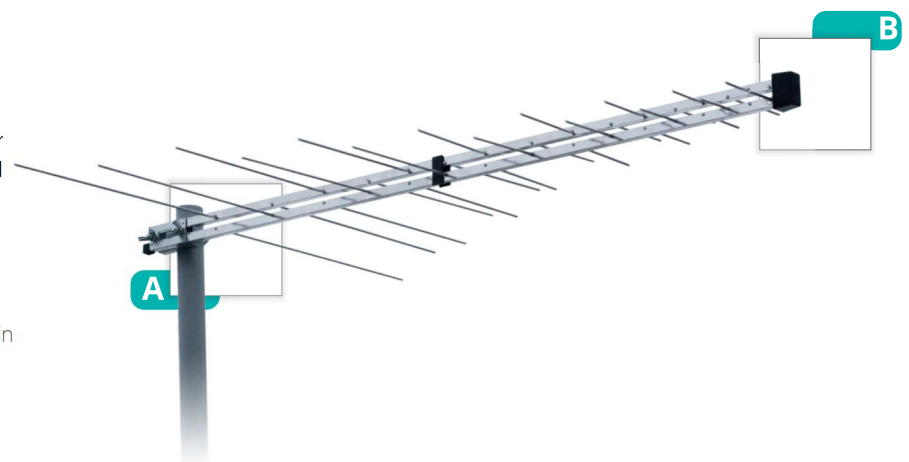
Kabel je potrebno vstaviti v spodnji nosilec antene. Priklop kabla je mehanski, s pomočjo vijakov.
Npr. **P-2845**



VERSION - WITH BUILT-IN "F" FEMALE CONNECTOR IZVEDBA - Z VGRAJENIM "F" ŽENSKIM KONEKTORJEM

The antenna has a built-in "F" female connector.
Coax. cable with "F" male connector must be connected to the antenna and protected by rubber protector (antenna already includes connector and rubber protector).

Antena ima vgrajen "F" ženski konektor. Kabel se s pomočjo "F" moškega konektorja priključi na anteno in zaščiti s protektorjem (konektor in protektor sta priložena).



LOG ANTENNAS

LOG ANTENE

VERSION - WITH FIXES "F" FEMALE CONNECTOR IZVEDBA - S FIKSNIM "F" ŽENSKIM KONEKTORJEM

Passive antenna without amplifier.

Pasivna antena brez ojačevalnika.

Passive antenna can have following built-in inside the antenna carrier:

- only F female connector Eg.: **P-20 F**
- F female connector with LTE cut filter (see page 19)
 - LTE 800 LIGHT filter Eg.: **P-20 FLT**
 - LTE 700/800 LIGHT filter Eg.: **P-20 FLT7**

Pasivna antena ima v nosilcu antene vgrajen:

- samo F ženski konektor Npr.: **P-20 F**
- F ženski konektor z LTE sesalnim filtrom (glej stran 19)
 - LTE 800 LIGHT filter Npr.: **P-20 FLT**
 - LTE 700/800 LIGHT filter Npr.: **P-20 FLT7**

Active antenna with amplifier.

Aktivna antena z ojačevalnikom.

Active antenna can have built-in following amplifiers inside the antenna carrier:

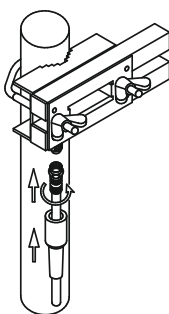
- low noise amplifier DIGI-LOG 14VU (see page 17) Eg.: **P-2845 DTT/G**
- low noise amplifier DIGI-LOG 15R-U (with SWITCH system) (see page 17) Eg.: **P-2845 G-SWITCH**
- low noise amplifier DIGI-LOG 14VU with LTE cut filter LTE 800 LIGHT (see page 17) Eg.: **P-2845 GLT**

Suitable power supply unit with output DC 12 V, 150 mA.

Aktivna antena ima lahko v nosilcu antene vgrajena sledeča ojačevalnike:

- nizkošumni ojačevalnik DIGI-LOG 14VU (glejte stran 17) Npr.: **P-2845 DTT/G**
- nizkošumni ojačevalnik DIGI-LOG 15R-U (s SWITCH sistemom) (glejte stran 17) Npr.: **P-2845 G-SWITCH**
- nizkošumni ojačevalnik DIGI-LOG 14VU z vgrajenim LTE sesalnim filtrom LTE 800 LIGHT (glejte stran 17) Npr.: **P-2845 GLT**

Primeren napajalnik je z izhodom enosm. 12V, 150 mA.



VERSION WITH ROTATING "F" FEMALE CONNECTOR IZVEDBA - Z VRTLJIVIM "F" ŽENSKIM KONEKTORJEM

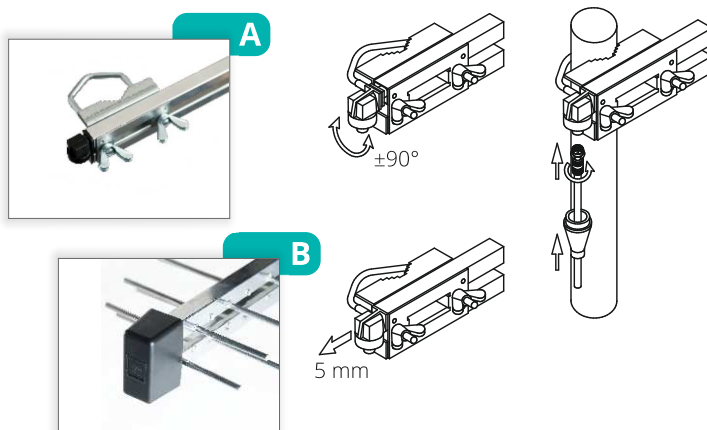
If this version it is possible to turn "F" connector for 90° very easy. With this version it is suitable to use antenna in vertical polarization.

It is used only for passive antennas without built-in LTE filters or antenna amplifier.

Eg.: **P-2845 FZ**

V tej izvedbi je mogoče zavrteti "F" konektorja za 90°. Ta izvedba je še posebej primerna za uporabo antene tudi v vertikalni polarizaciji. Uporablja se le pri pasivnih antenah brez vgrajenega LTE filtra ali antenskega ojačevalnika.

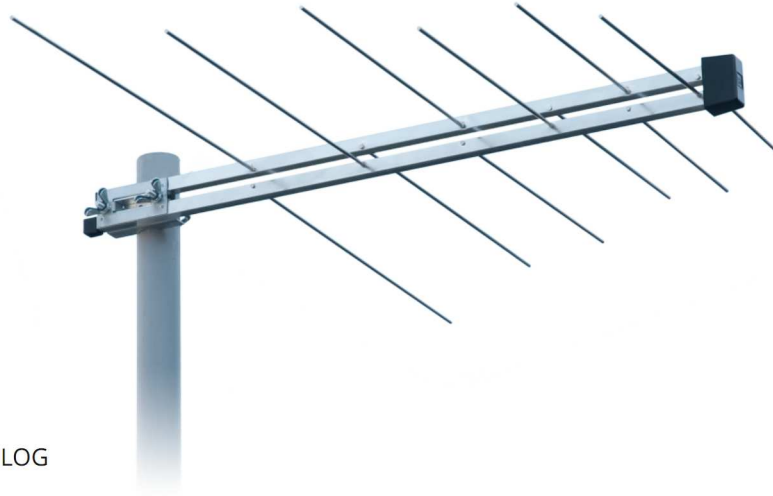
Npr.: **P-2845 FZ**



LOG ANTENNAS - VHF

LOG ANTENE - VHF

VHF
Ch. 5-12 (174 - 230 MHz)



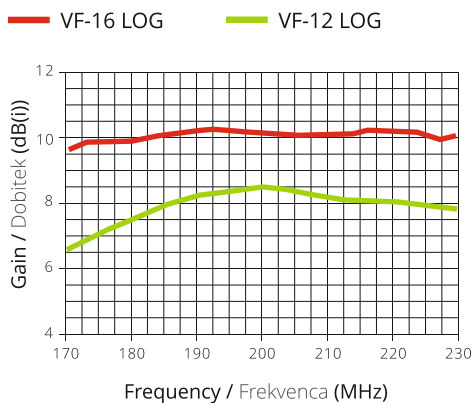
VF-12 LOG

TECHNICAL DATA / TEHNIČNI PODATKI

Type Tip	No. of elements Število elementov	Gain Dobitek	F/B ratio Razmerje naprej-nazaj	Beam width Širina glav. lista	Connection Priključek	Impedance Impedanca	Lenght Dolžina antene	Packing Pakiranje		
								pcs. kos	cm	m ³
VF-12 LOG	12	7.5 - 8.5 dB(i)	20 dB	Horiz. 50° Vert. 60°	-	75 Ohm	69 cm	5	90 x 70 x 17	0.107
VF-12 LOG F*					"F"			10	90 x 79 x 17	0.121
VF-16 LOG	16	10 dB(i)	22 dB	Horiz. 45° Vert. 55°	-	75 Ohm	121 cm	1	122 x 87 x 7	0.074
VF-16 LOG F*					"F"			10	157 x 89 x 17	0.262

* Passive antenna with different connections (see page 9) / Pasivna antena z različnimi priklopi (glej stran 9)

DIAGRAM OF GAINS / GRAF DOBITKOV



LOG ANTENNAS - UHF

LOG ANTENE - UHF

UHF
Ch. 21-69 (470 - 862 MHz)



P-20



P-20 WF



P-28

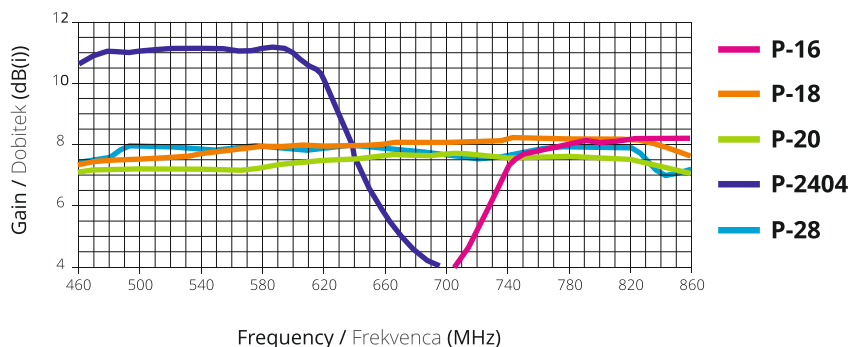
TECHNICAL DATA / TEHNIČNI PODATKI

Type Tip	Channels (frequency) Kanali (frekvenca)	No. of elements Število elementov	Gain Dobitek	F/B ratio Razmerje naprej-nazaj	Beam width Širina glav. lista	Connection Priključek	Impedance Impedanca	Length Dolžina antene	Packing Pakiranje		
									pcs. kos.	cm	m ³
P-16	Ch. 57 - 69 (758 - 862 MHz)	16	8 dB(i)	18 dB	Horiz. 48 - 54° Vert. 52 - 60°	-	75 Ohm	55 cm	5	59 x 27 x 18	0.029
P-16 F*			22 dB(i)			"F"					
P-16 DTT/G**			"F"								
P-18	Ch. 21 - 69 (470- 862 MHz)	18	8 dB(i)	20 dB	Horiz. 47 - 53° Vert. 50 - 58°	-	75 Ohm	60 cm	10	111 x 34 x 16	0.060
P-18 F*			23 dB(i)			"F"					
P-18 DTT/G**			"F"								
P-20	Ch. 21 - 69 (470- 862 MHz)	20	7.5 dB(i)	21 dB	Horiz. 49 - 56° Vert. 53 - 60°	-	75 Ohm	40 cm	25	111 x 34 x 27	0.102
P-20 F			22.5 dB(i)			"F"					
P-20 WF*			"F"								
P-20 DTT/G			"F"								
P-20 W DTT/G**			"F"								
P-2404	Ch. 21 - 37 (470- 606 MHz)	24	11 dB(i)	>27 dB	Horiz. 39 - 48° Vert. 42 - 51°	-	75 Ohm	116 cm	9	148 x 33.5 x 33	0.164
P-2404 F*			26 dB(i)			"F"					
P-2404 DTT/G**			"F"								
P-28	Ch. 21 - 69 (470- 862 MHz)	28	8 dB(i)	23 dB	Horiz. 43 - 50° Vert. 48 - 52°	-	75 Ohm	77 cm	5	81 x 36 x 17	0.050
P-28 F*			23 dB(i)			"F"					
P-28 DTT/G**			"F"								

* Passive antenna with different connections (see page 9) / Pasivna antena z različnimi priklopi (glej stran 9)

** Active antenna with built-in low noise amplifier (see page 17) / Aktivna antena z vgrajenim nizkošumnim ojačevalnikom (glej stran 17)

DIAGRAM OF GAINS / GRAF DOBITKOV



LOG ANTENNAS - UHF

LOG ANTENE - UHF

MOUNTING ANTENNA ON WINDOW'S FRAME PRITRDITEV ANTENE NA OKENSKI OKVIR

Special type are P-20 WF and P-20 W DTT/G. They contain additional carrier 18x12 mm for mounting antenna on window's frame, for horizontal or vertical polarisation.

Posebna izvedba sta anteni P-20 W in P-20 W DTT/G, ki imata zgornji nosilec daljši. Priložen ima dodatni nosilec 18x12 mm, ki omogoča pritrditev antene na okenski okvir za horizontalno ali vertikalno polarizacijo.

P-20 WF
P-20 W DTT/G



For horizontal polarization / za horizontalno polarizacijo



For vertical polarization / za vertikalno polarizacijo

P-20 W DTT/G KIT P-20 W DTT/G KOMPLET



Antenna
Antena
P-20 W DTT/G



Coax. cable extension
Koaksialni podaljšek
L = 10 m



Power supply
Napajalnik
DC 12 V / 150 mA



Polybag with hanging carton
Vrečka z obešanko

LOG ANTENNAS - UHF

LOG ANTENE - UHF

UHF
Ch. 21-69 (470 - 862 MHz)



P-2845

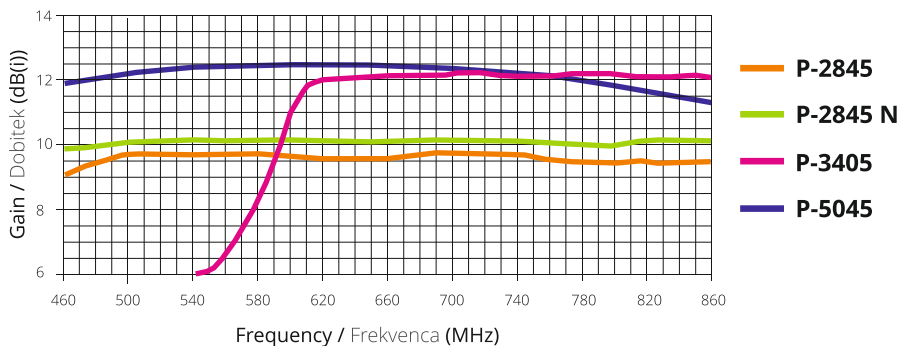
TECHNICAL DATA / TEHNIČNI PODATKI

Type Tip	Channels (frequency) Kanali (frekvenca)	No. of elements Število elementov	Gain Dobitek	F/B ratio Razmerje naprej-nazaj	Beam width Širina glav. lista	Connection Priključek	Impedance	Length Dolžina antene	Packing Pakiranje		
									pcs. kos.	cm	m ³
P-2845	Ch. 21 - 69 (470 - 862 MHz)	28	9.5 dB(i)	24 dB	Horiz. 35 - 45° Vert. 55 - 46°	-	75 Ohm	106 cm	1	106 x 34.5 x 5.5	0.020
P-2845 F*			"F"			5			111 x 34 x 16	0.060	
P-2845 DTT/G**			"F"			10			111 x 34 x 27	0.102	
P-2845 N	Ch. 21 - 69 (470 - 862 MHz)	28	10 dB(i)	27 dB	Horiz. 30 - 40° Vert. 52 - 43°	-	75 Ohm	114 cm	10	121 x 34 x 27	0.111
P-2845 NF*			"F"								
P-2845 N DTT/G**			"F"								
P-3405	Ch. 38 - 69 (606 - 862 MHz)	34	12 dB(i)	>27 dB	Horiz. 44° Vert. 46°	-		127 cm	15	144 x 33.5 x 30	0.145
P-3405 F*			"F"								
P-3405 DTT/G**			"F"								

* Passive antenna with different connections (see page 9) /
Pasivna antena z različnimi priklopi (glej stran 9)

** Active antenna with built-in low noise amplifier (see page 17) /
Aktivna antena z vgrajenim nizkošumnim ojačevalnikom (glej stran 17)

DIAGRAM OF GAINS / GRAF DOBITKOV



P-2845 DTT / G KIT
P-2845 DTT / G KOMPLET



Antenna
Antena
P-2845 DTT/G

+



Coax. cable extension
Koaksialni podaljšek
L = 10 m

+



Power supply
Napajalnik
DC 12 V / 150 mA

+

Polybag with hanging carton
Vrečka z obešanko

LOG ANTENNAS - VHF/UHF

LOG ANTENE - VHF/UHF

VHF + UHF
Ch. 5 - 12 (174 - 230 MHz)
Ch. 21-69 (470 - 862 MHz)



P-3235 MINI



P-3235 MIDI



P-4035 MAXI

TECHNICAL DATA / TEHNIČNI PODATKI

Type Tip	Channels (frequency) Kanali (frekvenca)	No. of elements Številko elementov	Gain Dobitek	F/B ratio Razmerje naprej-nazaj	Beam width Širina glav. lista	Connection Priključek	Impedance Impedanca	Length Dolžina antene	Packing Pakiranje		
									pcs. kos.	cm	m ³
P-2434 P-2434 F*	Ch. 5 - 12 (174 - 230 MHz)	24	Ch.5-12: 8 dB(i) Ch.21-37: 9 dB(i)	20-24 dB	Horiz. 46 - 57° Vert. 54 - 66°	-	75 Ohm	105.5 cm	10	117.5 x 99 x 17	0.200
P-2434 DTT/G **	Ch. 21 - 37 (470 - 606 MHz)		24 dB(i)								
P-3235 MINI P-3235 MINI F*	Ch. 5 - 12 (174 - 230 MHz)	32	7.5 dB(i)	18-22 dB	Horiz. 45 - 55° Vert. 55 - 65°	-	75 Ohm	78 cm	5	90 x 79 x 17	0.121
P-3235 MINI DTT/G **	Ch. 21 - 69 (470 - 862 MHz)		22.5 dB(i)								
P-3235 MIDI P-3235 MIDI F*	Ch. 5 - 12 (174 - 230 MHz)	32	7.5-8.5 dB(i)	20-26 dB	Horiz. 45 - 55° Vert. 55 - 65°	-	75 Ohm	120 cm	10	117.5 x 98.5 x 17	0.200
P-3235 MIDI DTT/G **	Ch. 21 - 69 (470 - 862 MHz)		23 dB(i)								
P-4035 MAXI P-4035 MAXI F*	Ch. 5 - 12 (174 - 230 MHz)	40	VHF: 7.5-8.5 dB(i) UHF: 10-12 dB(i)	22-28 dB	Horiz. 35 - 45° Vert. 30 - 55°	-	75 Ohm	161 cm	10	157 x 98 x 17	0.262
P-4035 MAXI DTT/G **	Ch. 21 - 69 (470 - 862 MHz)		VHF: 22 dB(i) UHF: 26 dB(i)								

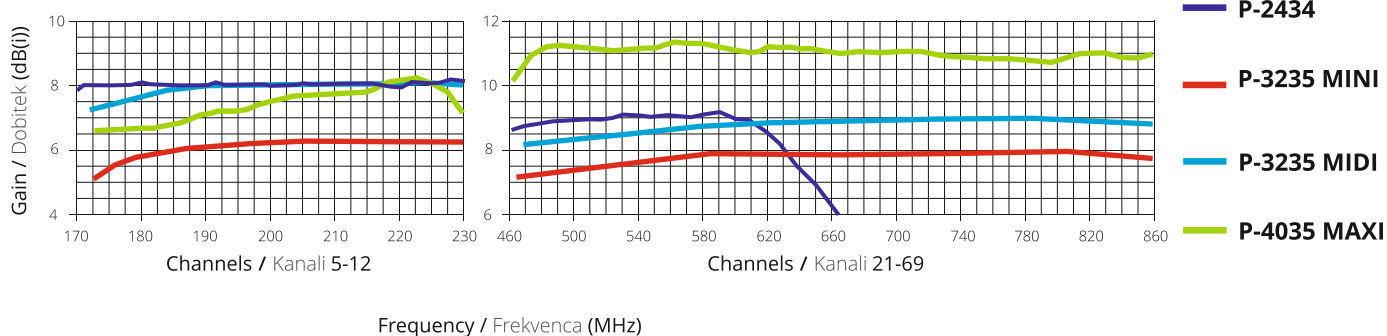
* Passive antenna with different connections (see page 9)
Pasivna antena z različnimi prikljopi (glej stran 9)

** Active antenna with built-in low noise amplifier (see page 17) /
Aktivna antena z vgrajenim nizkošumnim ojačevalnikom (glej stran 17)

The antennas **P-4035 MAXI F** and **P-4035 MAXI DTT/G** are used only for horizontal polarization due to construction limitation.

Anteni **P-4035 MAXI F** in **P-4035 MAXI DTT/G** se uporabljata le za horizontalno polarizacijo zaradi konstrukcijskih omejitev.

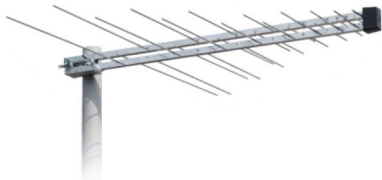
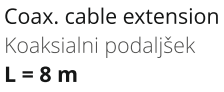

DIAGRAMS OF GAINS / GRAFI DOBITKOV



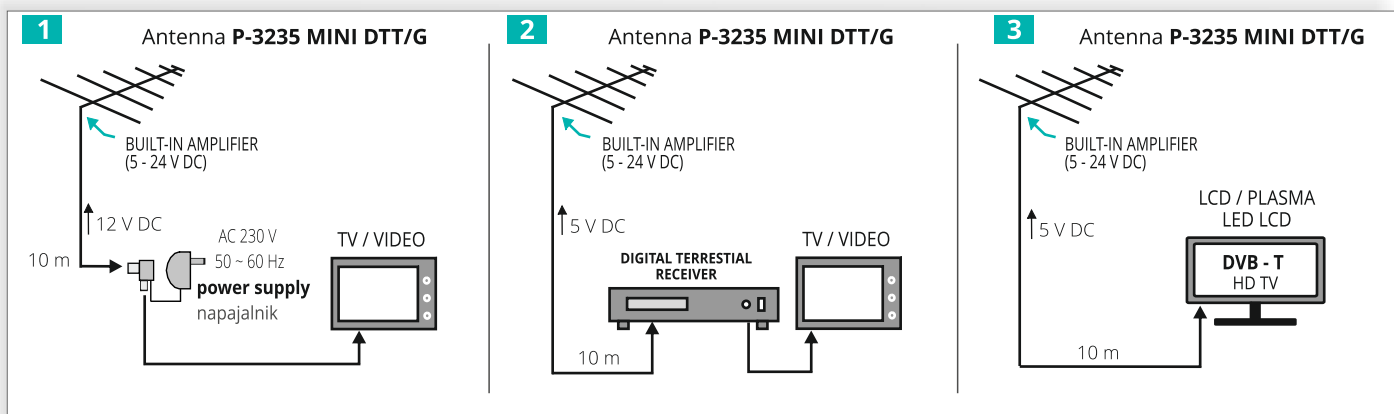
LOG ANTENNAS - VHF/UHF

LOG ANTENE - VHF/UHF

G-3235 ME-N KIT
G-3232 ME-N KOMPLET

	+		+		+	
Antenna Antena P-3235 MINI DTT/G		Coax. cable extension Koaksialni podaljšek L = 8 m		Power supply Napajalnik DC 12 V / 150 mA		Single carton box with print Posamična potiskana embalaža

EXAMPLES OF CONNECTION G-3235 ME-N
PRIMER PRIKLJUČITVE G-3235 ME-N



BUILT-IN ANTENNAS AMPLIFIERS FOR LOG ANTENNAS

VGRAJENI ANTENSKI OJAČEVALNIK ZA LOG ANTENE

Low-noise antenna amplifier serie DIGI-LOG is built-in inside aluminium antenna carrier 14x14 mm. It is used only for LOG antennas. Amplifier can be supplied from outside power supply* or directly from DVB-T receiver. Power supply is provided through the same coax. cable as reception signal.

Nizkošumni antenski ojačevalnik serije DIGI-LOG je vgrajen v notranjosti aluminijastega nosilca 14x14 mm. Uporablja se le pri LOG antenah. Napaja se iz zunanje napajalnika* ali direktno iz digitalnega zemeljskega sprejemnika. Napajanje poteka preko istega koaks. kabla kot je prenos signala iz antene k TV.

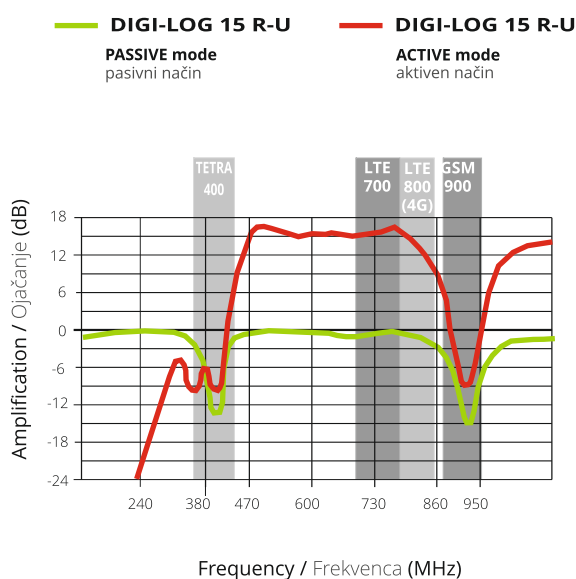
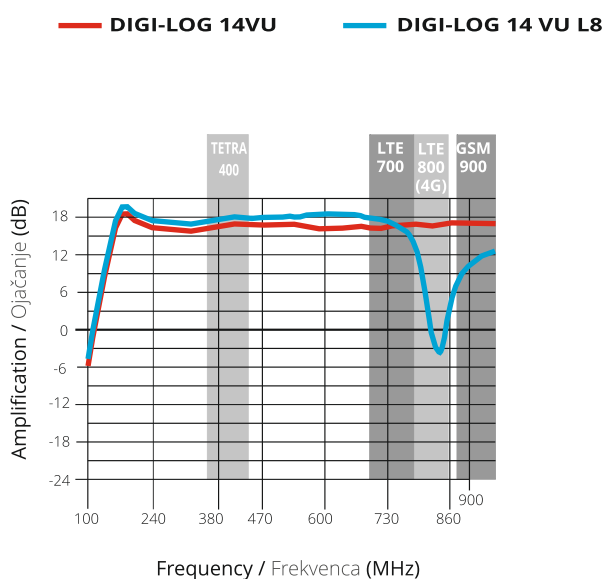
TECHNICAL DATA / TEHNIČNI PODATKI

Amplifier type Tip ojačevalnika	Frequency range Frekvenčni pas	Amplification Ojačanje	Noise figure Šumno št.	Power supply Napajanje	Impedance / Connector Impedanca / konektor
DIGI-LOG 14VU ¹⁾	Ch. 5 - 69 174 - 862 MHz	16 dB @ 5-24 VDC	2 dB	25 mA @ 5-24 VDC	75 Ohm * "F" female "F" ženski
DIGI-LOG 14VU L8 ¹⁾²⁾ (filter LTE 800 LIGHT)	Ch. 5 - 60 174 - 790 MHz				
DIGI-LOG 15R-U ³⁾ (NOTCH filter)	Ch. 21 - 69 470 - 862 MHz	15 dB @ 5-24 VDC	83 mA @ 5-24 VDC		

* Recommended power supply with output DC 12 V, 150 mA / Priporočamo napajalnik z izhodom enosm. 12 V, 150 mA

- 1) Antenna amplifier DIGI-LOG 14VU has built-in no LTE filters.
Antenski ojačevalnik DIGI-LOG 14VU nima vgrajenih nobenih LTE filtrov.
- 2) Antenna amplifier DIGI-LOG 14VU L8 has built-in LTE CUT filter LTE 800 LIGHT for cutting LTE 800 frequencies 791-862 MHz /
Antenski ojačevalnik DIGI-LOG 14VU L8 ima vgrajen LTE sesalni filter LTE 800 LIGHT za dušenje LTE 800 signalov 791 - 862 MHz
- 3) Antenna amplifier DIGI-LOG 15R-U has built-in SWITCH system and 4 NOTCH (stop band) filters for TETRA 400 and GSM 900 MHz frequencies /
Antenski ojačevalnik DIGI-LOG 15R-U ima vgrajen switch sistem in 4 sesalne filtre proti motnjam od TETRA 400 in GSM 900 MHz frekvenc

DIAGRAM OF AMPLIFICATION / GRAF OJAČANJA



BUILT-IN ANTENNAS AMPLIFIERS FOR LOG ANTENNAS

VGRAJENI ANTENSKI OJAČEVALNIK ZA LOG ANTENE

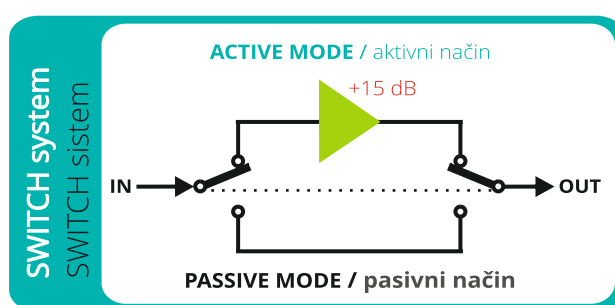
HOW SYSTEM "SWITCH" WORKS KAKO DELUJE SISTEM "SWITCH"

Example: Antenna P-20 G-SWITCH

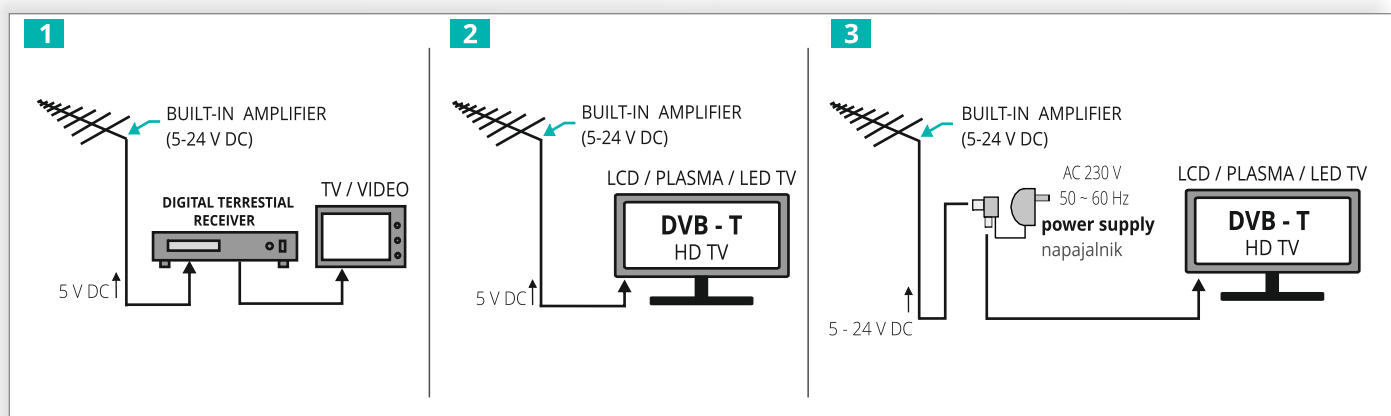
1. LOW UHF signal:
Switch ON power supply (5-24 V DC)
Gain = Antena + amplifier = 22.5 dB(i)
2. Strong UHF signal
Switch OFF power supply (don't need it)
Gain = Gain of antenna = 7.5 dB(i)

Primer: Antena P-20 G-SWITCH

1. Šibak UHF signal:
Vključimo (ON) napajanje (enosm. 5-24 V DC)
Ojačanje = Antena + ojačevalnik = 22.5 dB(i)
2. Močan UHF signal
Izključimo (OFF) napajanje (napajanja ne potrebujemo)
Ojačanje = dobitok antene = 7.5 dB(i)



EXAMPLES OF CONNECTION PRIMER PRIKLJUČITVE



LTE FILTERS FOR LOG ANTENNAS

LTE FILTRI ZA LOG ANTENE

LTE filters are built-in inside antenna's aluminium carrier (in log-periodic antennas). We have several different LTE CUT filters:

- **LTE 800 LIGHT** - Filter passes all frequencies from 0 to 790 MHz and primary cuts signals above 790 MHz.
- **LTE 700/800 LIGHT** - Filter passes all frequencies from 0 to 697 MHz and primary cuts signals above 697 MHz.

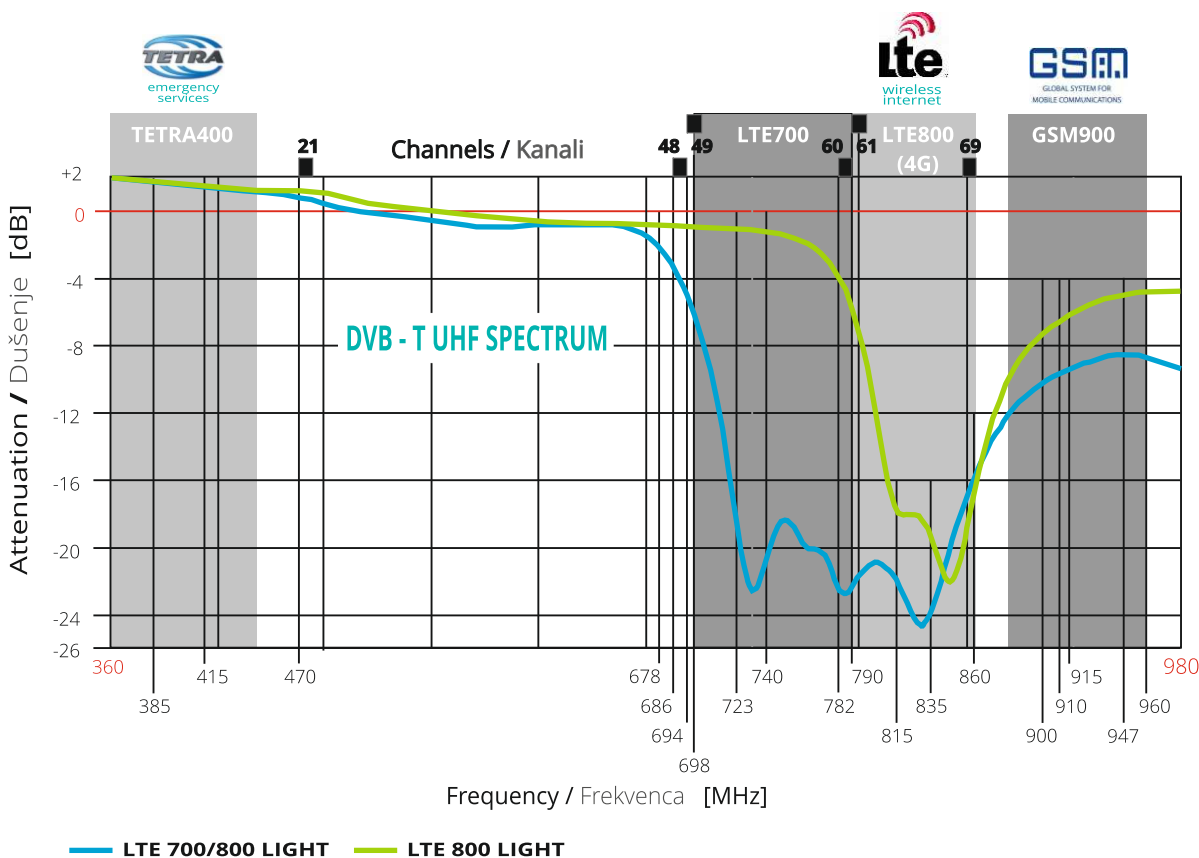
LTE filtri so vgrajeni v nosilec antene. Imamo več tipov LTE sesalnih filtrov:

- **LTE 800 LIGHT** - Spustijo vse frekvence 0 - 790 MHz in primarno zadušijo signale nad 790 MHz.
- **LTE 700/800 LIGHT** - Spustijo vse frekvence 0 - 697 MHz in primarno zadušijo signale nad 697 MHz.

TECHNICAL DATA / TEHNIČNI PODATKI

Type Tip	LTE 800 LIGHT	LTE 700/800 LIGHT
Function Funkcija	Attenuating LTE 800 signals / Dušenje LTE 800 signalov	Attenuating LTE 700 + LTE 800 signals / Dušenje LTE 700 + LTE 800 signalov
Cutting frequencies Dušenje frekvenc	791 - 862 MHz: - 20 dB	698 - 862 MHz: - 22 dB
Loss on channels Slabljenje na kanalih	- 3.5 dB @ Ch.59 - 6.2 dB @ Ch.60	- 2.3 dB @ Ch.48 - 4.5 dB @ Ch.49
Pass freq. range - internal loss Izguba na prep. pasu	0 - 790 MHz: <0.7 dB	0 - 697 MHz: <0.9 dB
Impedance Impedanca	75 Ohm	
Connector Konektor	female "F" ženski "F"	
Electro-static protection Elektrostatična zaščita	Yes Da	
Additional mark in antenna - Eg. Dodatna oznaka pri anteni - Npr.	P-2845 FLT	P-2845 FLT7

DIAGRAM OF ATTENUATION / GRAF DUŠENJA

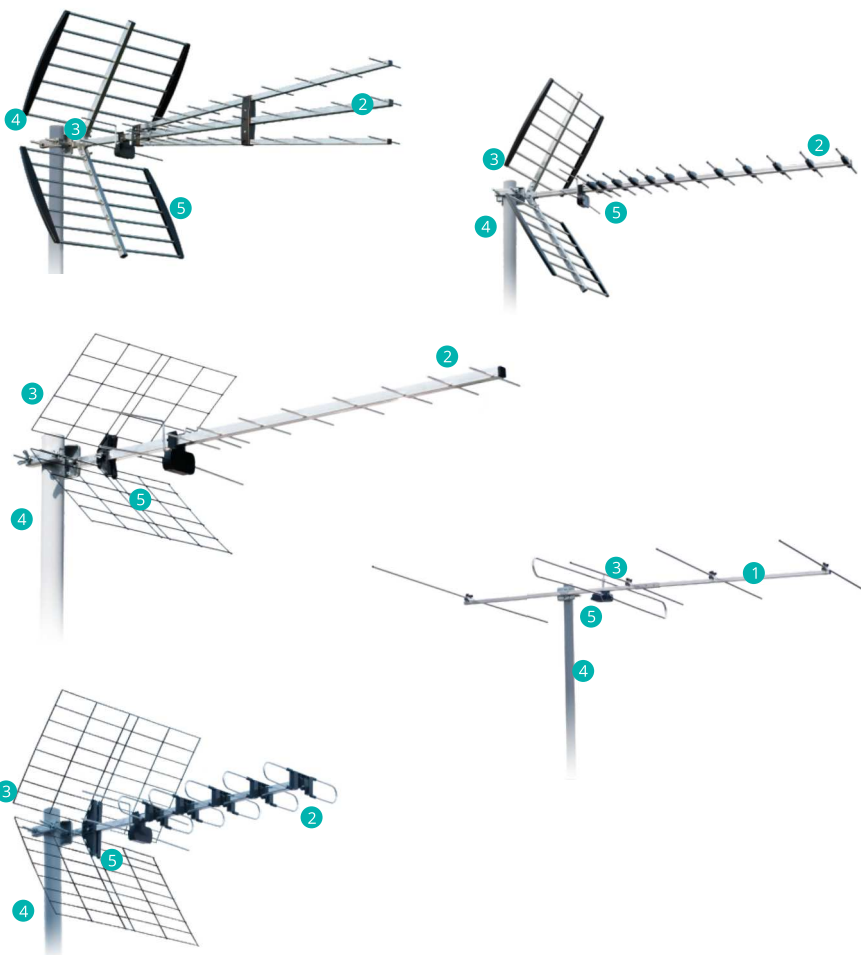


YAGI ANTENNAS

YAGI ANTENE

DESCRIPTIONS OF DIFFERENT VERSIONS OF LOG ANTENNAS OPIS RAZLIČNIH IZVEDB LOG ANTEN

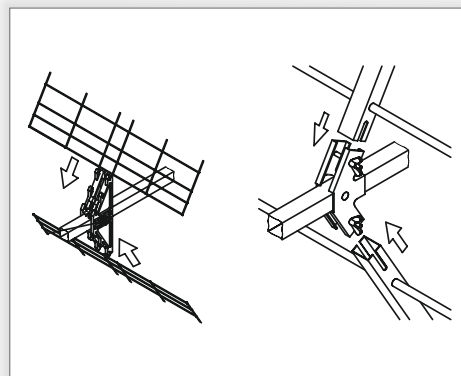
- 1 Antenna carriers / Nosilca antene
aluminium tube / aluminij cev
18x18x0.7 EN AW 3005 (AlMn1Mg0.5) H165
- 2 Antenna carriers / Nosilca antene
aluminium tube / aluminij cev
18x18x0.7 EN AW 3005 (AlMn1Mg0.5) H165
- 3 Iron parts / Kovinski deli
hot galvanized steel / vroče cinkano jeklo
- 4 Fixing to mast / Pritrditev antene na drog
Inclination 0-10°, horizontal or vertical polarization /
inklinacija 0-10°, horizontalna ali vertikalna polarizacija
outside mast diameter / zunanji premer droga
D = 20... 62 mm
- 5 Plastics / Plastika
ABS UV resistant / ABS UV obstojna



REFLECTORS REFLEKTORJI

All reflectors are already factory-assembled. Each antenna's reflector is adjusted to achieve the best possible characteristics for the antenna. Reflector's installation on the antenna carrier is quick and easy without additional tools.

Vsi reflektorji so že tovarniško sestavljeni. Za vsako anteno so prilagojeni, da ima antena čimboljše lastnosti. Montaža na nosilec antene je hitra in enostavna brez dodatnega orodja.



YAGI ANTENNAS

YAGI ANTENE

DIPOLE DIPOL

Dipole is the heart of antenna. Therefore, each dipole of ISKRA antenna is designed for the best signal reception on its frequency band. YAGI antennas have mechanically 3 different dipoles:

Classic dipole with direct connection of coax. cable

Classic dipole with "F" female connector can have following baluns inside:

- passive balun for channels 21 - 69
- active balun with built-in amplifier DIGI-YAGI 20VD (see page 29)

DTX dipole with "F" female connector can have following baluns inside:

- passive balun for channels 21-69
- passive balun with LTE 800 LIGHT filter (for channels 21-60) (see page 32)
- passive balun with LTE 700/800 LIGHT filter (for channels 21-60) (see page 32)
- active balun with built-in amplifier DIGI-YAGI 16U (see page 30)
- active balun with built-in amplifier DIGI-YAGI 18U (see page 30)
- active balun with built-in amplifier DIGI-YAGI 18U L8 (DIGI-YAGI 18U with LTE cut filter LTE 800 LIGHT) (see page 30)
- active balun with built-in amplifier DIGI-YAGI 18U L7 (DIGI-YAGI 18U with LTE cut filter LTE 700/800 LIGHT) (see page 30)

Dipol je srce antene, zato ima vsaka ISKRA antena dipol natančno prilagojen za najboljši sprejem signalov v svojem frekvenčnem pasu. YAGI antene imajo mehansko 3 različne dipole:

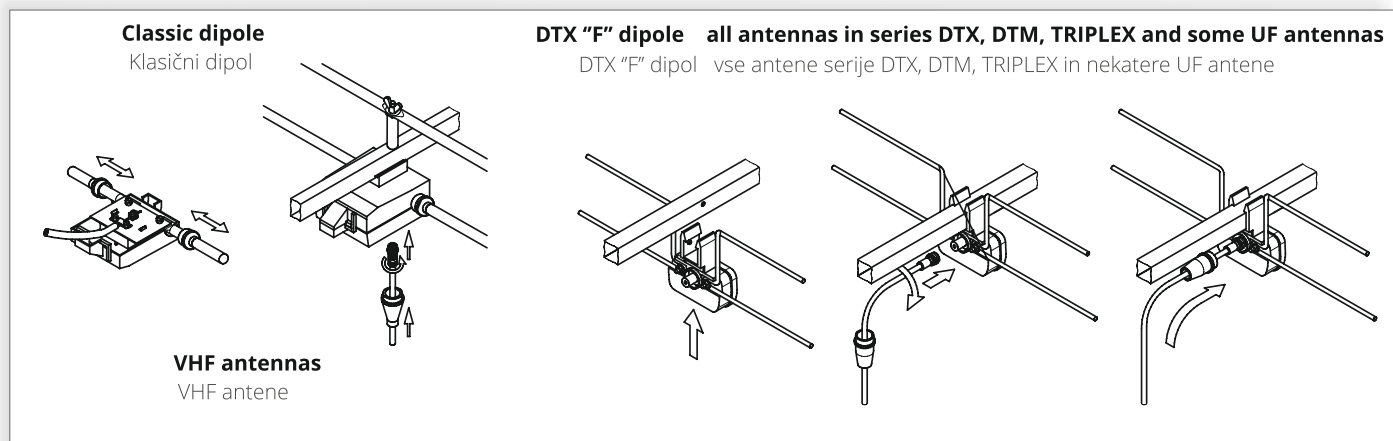
Klasični dipol z direktnim priklopom koaksialnega kabla

Klasični dipol z "F" ženskim konektorjem:

- pasivni sim. člen za kanale 21 - 69
- aktivni sim. člen z ojačevalnikom DIGI-YAGI 20VD (glej stran 29)

DTX dipol z "F" ženskim konektorjem lahko vsebuje različne simetrične člene:

- pasivni sim. člen za kanale 21-69
- pasivni sim. člen z LTE 800 LIGHT sesalnim filtrom (za kanale 21-60) (glej stran 32)
- pasivni sim. člen z LTE 700/800 LIGHT sesalnim filtrom (za kanale 21-48) (glej stran 32)
- aktivni sim. člen z ojačevalnikom DIGI-YAGI 16U (glej stran 30)
- aktivni sim. člen z ojačevalnikom DIGI-YAGI 18U (glej stran 30)
- aktivni sim. člen z ojačevalnikom DIGI-YAGI 18U L8 (DIGI-YAGI 18U in LTE sesalnim filtrom LTE 800 LIGHT) (glej stran 30)
- aktivni sim. člen z ojačevalnikom DIGI-YAGI 18U L7 (DIGI-YAGI 18U in LTE sesalnim filtrom LTE 700/800 LIGHT) (glej stran 30)



DIRECTORS DIREKTORJI

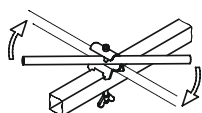
Directors have different shapes, dimensions and are electrically specially designed for each antenna's type:

- **Channel and VHF antennas**
tubes dia. ϕ 10 mm, premounted, final mounting without any tools
- **DTX series antennas**
rods dia. ϕ 4 mm, final mounting without any tools
- **DTM series antennas**
tubes dia. ϕ 8 mm, fixed on antenna carrier, additional mountingis not necessary
- **TRIPLEX and UF series antennas**
rods dia. ϕ 4 mm, fixed on antenna carrier, additional mountingis not necessary

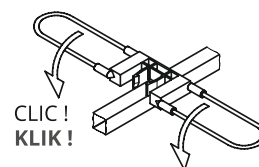
Direktorji so različnih izvedb, dimenzijsko in električno prilagojeni posameznemu tipu anten:

- **Kanalne in VHF antene**
cevke ϕ 10 mm, predmontirani, končno sestavljanje brez orodja
- Antene serije **DTX**
palice ϕ 4 mm, fkončno sestavljanje brez dodatnega orodja
- Antene serije **DTM**
cevke ϕ 8 mm, fiksne na nosilcu, dodatna montaža ni potrebna
- Antene **TRIPLEX in UF**
palice ϕ 4 mm, fiksne na nosilcu, dodatna montaža ni potrebna

Channels and VHF antennas Kanalne in VHF antene



Antennas series DTX Antene serije DTX



YAGI ANTENNAS - VHF

YAGI ANTENE - VHF

VHF
Ch. 5-12 (174 - 230 MHz)



VF-6 F



VF-9 F

Impedance Impedanca	75 Ohm	Channels Kanali	5-12 (174-230 MHz)	Polarization Polarizacija	Horiz./Vert.	Antenna carrier Nosilec antene	18 x 12	Mounting on mast Montaža na drog	D = 20-62 mm
------------------------	--------	--------------------	-----------------------	------------------------------	--------------	-----------------------------------	---------	-------------------------------------	--------------

D - outside mast diameter /
zunanji premer droga

TECHNICAL DATA / TEHNIČNI PODATKI

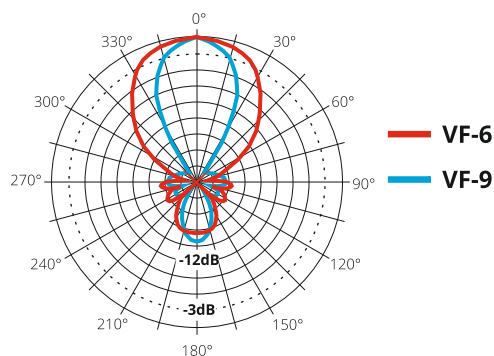
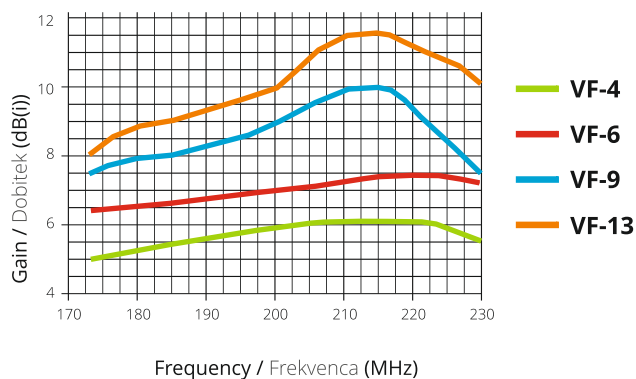
Type Tip	No. of elements Število elementov	Gain Dobitek	F/B ratio Razmerje naprej-nazaj	Beam width Širina glav. lista	Length Dolžina antene	Packing Pakiranje		
						pcs. kos	cm	m ³
VF-4 VF-4F *	4	5 - 6 dB(i)	15 - 18 dB	Horiz. 60° Vert. 105°	67 cm	10	111 x 23 x 27	0.069
VF-6 VF-6F *	6	6 - 7.5 dB(i)	16 - 18 dB	Horiz. 58° Vert. 86°	122 cm	1 10	133 x 14 x 13.5 161 x 25 x 24	0.025 0.097
VF-9 VF-9F **	9	7 - 10 dB(i)	17 - 22 dB	Horiz. 50° Vert. 72°	154 cm	1 10	164 x 14 x 13.5 164 x 25 x 31	0.031 0.127
VF-13 VF-13F **	13	9 - 11.5 dB(i)	20 - 26 dB	Horiz. 46° Vert. 60°	208 cm	10	144 x 33.5 x 30	0.145

* Antenna with "F" female connector / antena z "F" ženskim konektorjem

** Antenna with "F" female connector. It is also possible to order antenna with antenna carrier 18x18 mm. / antena z "F" ženskim konektorjem. Možno je naročiti anteno z nosilcem antene 18x18 mm.

It is possible to order antenna with active dipole (dipole with built-in amplifier) DIGI-YAGI 20VD or upgrade existing antenna with active dipole DIGI-YAGI 20VD later (see page 29).
Možno je naročiti anteno z aktivnim dipolom (dipol z vgrajenim ojačevalnikom) DIGI-YAGI 20VD ali pa anteno nadgraditi z aktivnim dipolom DIGI-YAGI 20VD kasneje (glej stran 29).

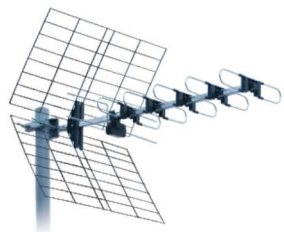
DIAGRAMS OF GAINS / GRAFI DOBITKOV



YAGI ANTENNAS - SERIES DTX

YAGI ANTENE - SERIJA DTX

UHF
Ch. 21-69 (470 - 862 MHz)



DTX-22 F



DTX-48 FC



DTX-92 FC

Impedance	75 Ohm	Dipole	DTX	Polarization	Horiz./Vert.	Antenna carrier	18 x 12	Mounting on mast	D = 20-62 mm
Impedanca		Dipol	"F"	Polarizacija		Nosilec antene		Montaža na drog	

D - outside mast diameter /
zunanji premer droga

TECHNICAL DATA / TEHNIČNI PODATKI

Type Tip	Channels (frequency) Kanali (frekvenca)	No. of elements Število elementov	Gain Dobitek	F/B ratio Razmerje naprej-nazaj	Beam width Širina glav. lista	Reflector Reflektor	Length Dolžina antene	Packing Pakiranje		
								pcs. kos.	cm	m ³
DTX-22 F	B.IV-V 21-69 (470-862 MHz)	22	10 - 14 dB(i)	>28 dB	Horiz. 62°... 32°	Type 1 Tip 1	81 cm	10	88 x 37 x 29	0.094
DTX-22 FC						Type 2 Tip 2		10	96 x 41 x 54	0.210
DTX-48 F	B.IV-V 21-37 (470-606 MHz)	48	11 - 16 dB(i)	>29 dB	Horiz. 54°... 26°	Type 1 Tip 1	111 cm	10	117 x 37 x 29	0.126
DTX-48 FC						Type 2 Tip 2		10	116 x 41 x 40	0.190
DTX-48 F 4	B.IV-V 21-37 (470-606 MHz)	48	12 - 13 dB(i)	>27 dB	Horiz. 54°... 40°	Type 1 Tip 1	120 cm	10	126 x 37 x 29	0.135
DTX-48 F 5	B.V 38-69 (606-862 MHz)					Type 1 Tip 1		10	117 x 37 x 29	0.126
DTX-92 F	B.IV-V 21-69 (470-862 MHz)	92	12 - 18.5 dB(i)	>30 dB	Horiz. 50°... 26°	Type 1 Tip 1	237 cm	1	124 x 33 x 9	0.037
DTX-92 FC						Type 2 Tip 2		1	121 x 41 x 9	0.046

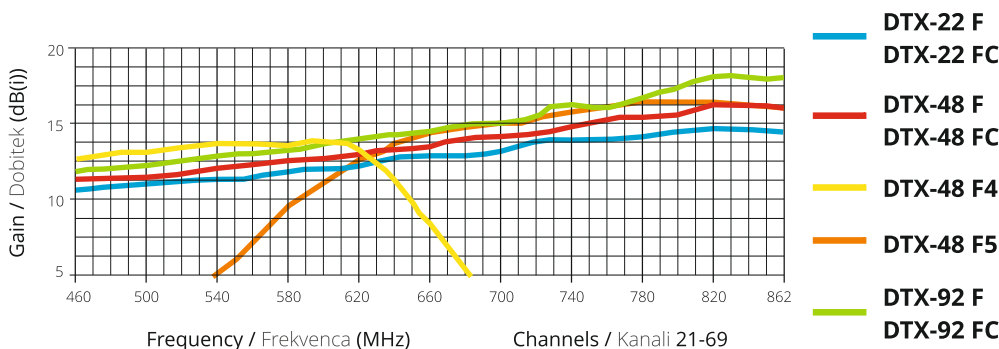
It is possible to order antenna with different DTX dipoles (see page 21) or upgrade existing antenna later:

- passive balun without LTE cut filter or with built-in LTE cut filter
- active balun (balun with built-in amplifier) without LTE cut filter or with built-in LTE cut filter

Možno je naročiti anteno z različnimi DTX dipoli (glej stran 21) ali pa obsejajočo anteno nadgraditi kasneje:

- pasivni simetrični člen brez LTE sesalnega filtra ali z vgrajenim LTE sesalnim filtrom
- aktivni simetrični člen (sim. člen z vgrajenim ojačevalnikom) brez LTE sesalnega filtra ali z vgrajenim sesalnim LTE filtrom

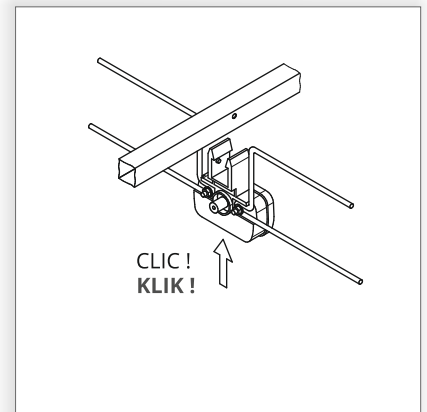
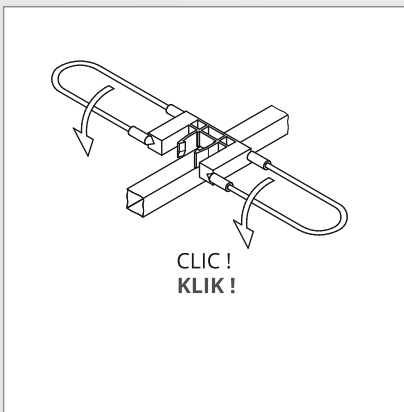
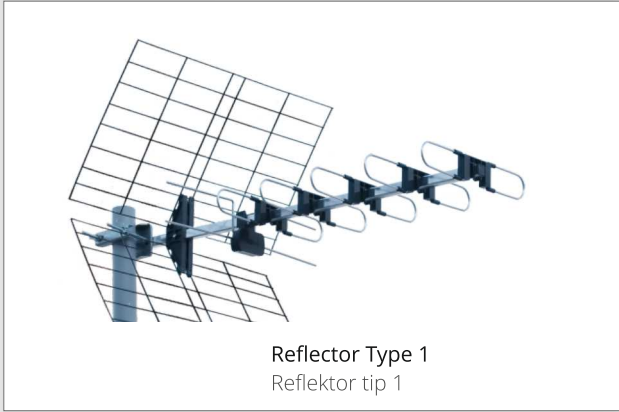
DIAGRAM OF GAINS / GRAF DOBITKOV



YAGI ANTENNAS - SERIES DTX

YAGI ANTENE - SERIJA DTX

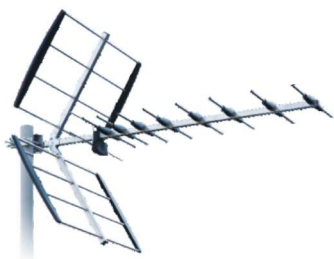
REFLECTOR / REFLEKTOR



YAGI ANTENNAS - SERIES DTM

YAGI ANTENE - SERIJA DTM

UHF
Ch. 21-69 (470 - 862 MHz)



DTM-27 F



DTM-44 F



DTM-91 F

Impedance	75 Ohm	Dipole	DTX	Polarization	Horiz./Vert.	Antenna carrier	18 x 18	Mounting on mast	D = 20-62 mm
Impedanca		Dipol	"F"	Polarizacija		Nosilec antene		Montaža na drog	

D - outside mast diameter /
zunanji premer droga

TECHNICAL DATA / TEHNIČNI PODATKI

Type Tip	Channels (frequency) Kanali (frekvenca)	No. of elements Število elementov	Gain Dobitek	F/B ratio Razmerje naprej-nazaj	Beam width Širina glav. lista	Reflector Reflektor	Length Dolžina antene	Packing Pakiranje		
								pcs. kos.	cm	m ³
DTM-27 F	B,IV-V 21-69 (470-862 MHz)	27	10 - 14 dB(i)	>26 dB	Horiz. 42° Vert. 54°	Type 1 Tip 1	103.5 cm	1	105 x 40.5 x 11.5	0.049
								10	108 x 42 x 51	0.231
DTM-44 F		44	11 - 15 dB(i)	>27 dB	Horiz. 34° Vert. 48°	Type 2 Tip 2	126.5 cm	1	128 x 40.5 x 11.5	0.060
								10	131 x 41 x 51	0.274
DTM-91 F		91	12 - 18 dB(i)	>30 dB	Horiz. 28° Vert. 38°		189.5 cm	1	114 x 40.5 x 9.5	0.044

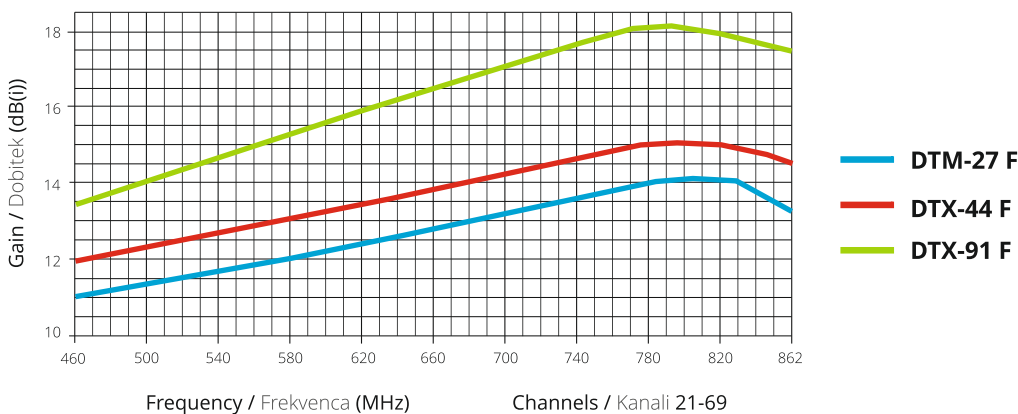
It is possible to order antenna with different DTX dipoles (see page 21) or upgrade existing antenna later:

- passive balun without LTE cut filter or with built-in LTE cut filter
- active balun (balun with built-in amplifier) without LTE cut filter or with built-in LTE cut filter

Možno je naročiti anteno z različnimi DTX dipoli (glej stran 21) ali pa obsoječo anteno nadgraditi kasneje:

- pasivni simetrični člen brez LTE sesalnega filtra ali z vgrajenim LTE sesalnim filtrom
- aktivni simetrični člen (sim. člen z vgrajenim ojačevalnikom) brez LTE sesalnega filtra ali z vgrajenim sesalnim LTE filtrom

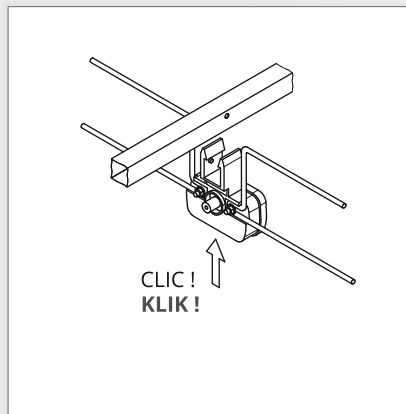
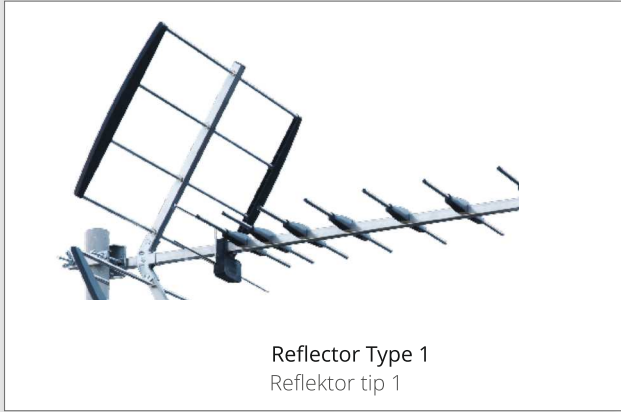
DIAGRAM OF GAINS / GRAF DOBITKOV



YAGI ANTENNAS - SERIES DTM

YAGI ANTENE - SERIJA DTM

REFLECTOR / REFLEKTOR



DTM DIRECTORS / DTM DIREKTORJI



YAGI ANTENNAS

YAGI ANTENE

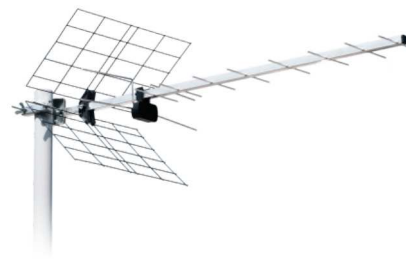
UHF
Ch. 21-69 (470 - 862 MHz)



P-43 N TRIPLEX



P-47 N TRIPLEX



UF-13 F45N

Impedance
Impedanca

75 Ohm

Polarization
Polarizacija

Horiz./Vert.

Mounting on mast
Montaža na drog

D = 20-62 mm

D - outside mast diameter /
zunanji premer droga

TECHNICAL DATA / TEHNIČNI PODATKI

Type Tip	Channels (frequency) Kanali (frekvenca)	No. of elements Število elementov	Gain Dobitek	F/B ratio Razmerje naprej-nazaj	Beam width Širina glav. lista	Antenna carrier Nosilec antene	Reflector Reflektor	Length Dolžina antene	Packing Pakiranje		
									pcs. kos.	cm	m ³
P-43 N TRIPLEX*		43	9.5 - 15 dB(i)	28 dB	Horiz. 32° Vert. 35°	1 x 18 x 18 2 x 14 x 14	Type 2 Tip 2	119 cm	1**	121 x 32 x 15	0.058
									5	128 x 23 x 33	0.097
P-47 N TRIPLEX*	Ch. 21-69 (470-862 MHz)	47	11 - 17 dB(i)	>28 dB	Horiz. 45° Vert. 24°		Type 3 Tip 3	128.5 cm	1	127.5 x 40.5 x 9.5	0.049
									5	131 x 40.5 x 15	0.080
UF-13 F45N*			7.5 - 11 dB(i)	20 dB	Horiz. 50° Vert. 56°	18 x 18		101 cm	1**	102 x 23 x 8	0.018
UF-13 F4	Ch. 21-38 (470-606 MHz)	13	12 dB(i)	>21 dB	Horiz. ±30°		Type 1 Tip 1	143.5 cm	10	111 x 34 x 27	0.102
UF-13 F5	Ch. 38-69 (606-862 MHz)		12 dB(i)	>20 dB	Horiz. ±17°	18 x 12		111.5 cm	10	148 x 33.5 x 33	0.164
										144 x 33.5 x 30	0.145

* It is possible to order antenna with different DTX dipoles (see page 21) or upgrade existing antenna later:

- passive balun without LTE cut filter or with built-in LTE cut filter
- active balun (balun with built-in amplifier) without LTE cut filter or with built-in LTE cut filter

* Možno je naročiti anteno z različnimi DTX dipoli (glej stran 21) ali pa obsoječo anteno nadgraditi kasneje:

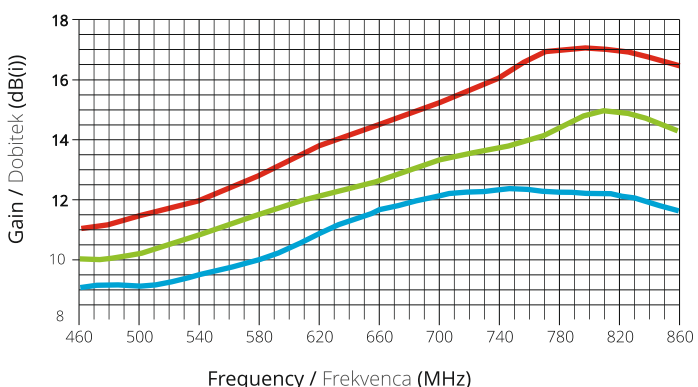
- pasivni simetrični člen brez LTE sesalnega filtra ali z vgrajenim LTE sesalnim filtrom
- aktivni simetrični člen (sim. člen z vgrajenim ojačevalnikom) brez LTE sesalnega filtra ali z vgrajenim sesalnim LTE filtrom

** Single carton box with print /

Posamična potiskana embalaža

DIAGRAM OF GAINS / GRAF DOBITKOV

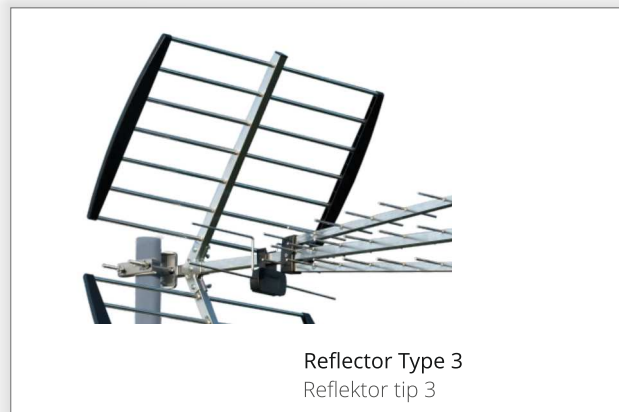
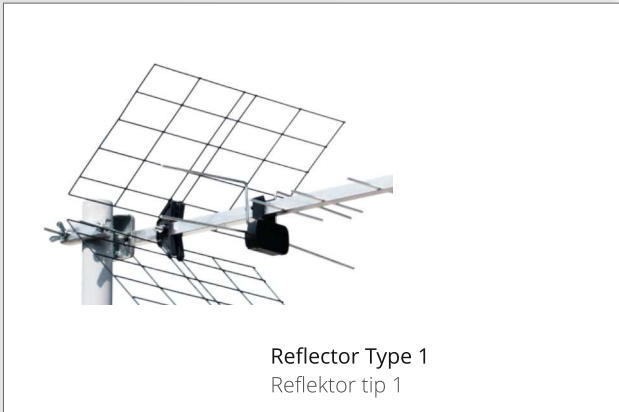
UF-13 F45N P-43 N TRIPLEX P-47 N TRIPLEX



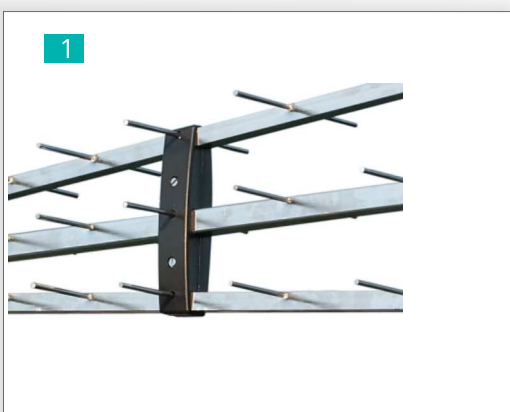
YAGI ANTENNAS

YAGI ANTENE

REFLECTOR / REFLEKTOR



TRIPLEX DETAIL / TRIPLEX DETAJL



ANTENNA AMPLIFIERS FOR YAGI ANTENNAS

ANTENSKI OJAČEVALNIKI ZA YAGI ANTENE

Low noise antenna amplifier DIGI YAGI 20VD is made as single active balun. It is used only for YAGI antenna with classic dipole on RADIO DAB antennas (page 6) or YAGI VHF antennas (page 22). It can be used for upgrading existing antenna too. Amplifier can be supplied from outside power supply* or directly from DVB-T receiver. Antenna is receiving signals only if balun is power supplied. Antenna is receiving signals only if balun is power supplied. Power supply is provided through the same coax. cable as reception signal.

Nizkošumni antenski ojačevalnik DIGI YAGI 20VD je narejen kot samostojni aktivni simetrični člen. Uporablja se le pri YAGI anteni s klasičnim dipolom, pri radijski DAB anteni (stran 6) ali YAGI-VHF anteni (stran 22). Uporablja se lahko tudi za naknadno vgradnjo v obstoječo anteno. Napaja se z zunanji napajalnik* ali direktno z digitalnim DVB-T sprejemnikom. Antena sprejema signale samo če je simetrični člen napajan z električno energijo. Napajanje poteka preko istega koaks. kabla kot je prenos sprejetega signala.

TECHNICAL DATA / TEHNIČNI PODATKI

Amplifier type Tip ojačevalnika	Frequency range Frekvenčni pas	Amplification Ojačanje	Cutting freq. (notch filter) Dušenje frekv. (sesalni filter)	Noise figure Šumno št.	Power supply Napajanje	Electro-static protection Elektrostatična zaščita	Impedance / Connector Impedanca / konektor
DIGI-YAGI 20VD	Ch. 5 - 12 + DAB 170 - 240 MHz	170 - 240 MHz + 20 dB	140 - 150 MHz - 28 dB	2 dB	25 mA @ 5-24 V DC	YES DA	75 Ohm "F" female "F" ženski

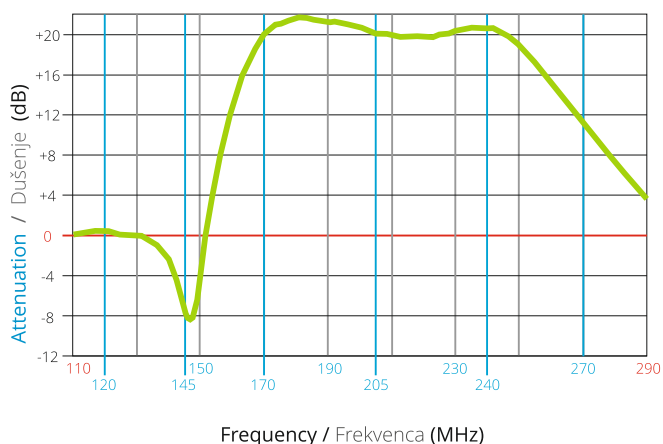
* Recommended power supply with output DC 12 V, 150 mA / Priporočamo napajalnik z izhodom enosm. 12V, 150 mA

Additional mark in antenna = Eg.
Dodatna oznaka pri anteni - Npr.

DIGI-YAGI 20VD

VF - 9 FG

DIAGRAM OF AMPLIFICATION / GRAF OJAČANJA



— DIGI-YAGI 20VD

ANTENNA AMPLIFIERS FOR YAGI ANTENNAS

ANTENSKI OJAČEVALNIKI ZA YAGI ANTENE

Low noise antenna amplifier DIGI YAGI is made as single active balun. It is used only for YAGI antenna with DTX "F" dipole (all antennas in series DTX, DTM, TRIPLEX and some UF antennas). It can be used for upgrading existing antenna. Amplifier can be supplied from outside power supply* or directly from DVB-T receiver. Antenna is receiving signals only if balun is power supplied. Power supply is provided through the same coax. cable as reception signal.

Nizkošumni antenski ojačevalnik DIGI YAGI je narejen kot samostojni aktivni simetrični člen. Uporablja se le pri YAGI anteni, ki ima DTX "F" dipol (vse antene serije DTX, DTM, TRIPLEX in nekatere UF antene). Uporablja se za naknadno vgradnjo v obstoječo anteno. Napaja se z zunanjim napajalnikom* ali direktno z digitalnim sprejemnikom. Antena sprejema signale samo če je simetrični člen napajan z električno energijo. Napajanje poteka preko istega koaks. kabla kot je prenos sprejetega signala.

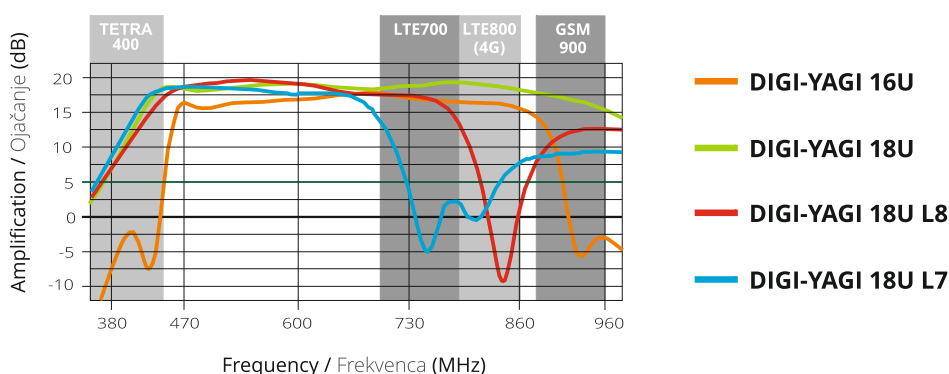
TECHNICAL DATA / TEHNIČNI PODATKI								
Amplifier type Tip ojačevalnika	Frequency range Frekvenčni pas	Amplification Ojačanje	Cutting frequencies Dušenje frekvenc	Noise figure Šumno št.	P-P Valovanje	Maks. output level Maks. jakost izhod. signala	Power supply Napajanje	Impedance Connector Impedanca konektor
DIGI-YAGI 16U ¹⁾ (3 NOTCH filters)	Ch. 21 - 69 470 - 862 MHz		350 - 460 MHz: - 22 dB 890 - 960 MHz: - 20 dB		1.8 dB	98 dBμV	22 mA @ 5 - 24 VDC	
DIGI-YAGI 18-U		18 dB @ 5-24 VDC	-	2 dB				75 Ohm "F" female "F" ženski
DIGI-YAGI 18U L8 ²⁾ (filter LTE 800 LIGHT)	Ch. 21 - 60 470 - 790 MHz		791 - 861 MHz: - 20 dB		1.4 dB	96 dBμV	25 mA @ 5 - 24 VDC	
DIGI-YAGI 18U L7 ³⁾ (filter LTE 700/800 LIGHT)	Ch. 21 - 48 470 - 697 MHz		698 - 862 MHz: - 22 dB					

* Recommended power supply with output DC 12 V, 150 mA / Priporočamo napajalnik z izhodom enosm. 12V, 150 mA

- 1) Antenna amplifier DIGI-YAGI 16U has built-in 3 NOTCH (stop band) filters for TETRA 400 and GSM 900 MHz and 1.1 GHz frequencies / Antenski ojačevalnik DIGI-YAGI 16U ima vgrajene 3 sesalne filtre proti motnjam TETRA 400 in GSM 900 MHz in 1.1 GHz frekvenc
- 2) Antenna amplifier DIGI-YAGI 18U L8 has built-in LTE CUT filter LTE 800 LIGHT for cutting LTE 800 frequencies 791-862 MHz / Antenski ojačevalnik DIGI-YAGI 18U L8 ima vgrajen LTE sesalni filter LTE 800 LIGHT za dušenje LTE 800 signalov 791-862 MHz
- 3) Antenna amplifier DIGI-YAGI 18U L7 has built-in LTE CUT filter LTE 700/800 LIGHT for cutting LTE 700/800 frequencies 698-862 MHz / Antenski ojačevalnik DIGI-YAGI 18U L7 ima vgrajen LTE sesalni filter LTE 700/800 LIGHT za dušenje LTE 700/800 signalov 698-862 MHz

Additional mark in antenna = Eg. Dodatna oznaka pri anteni - Npr.	DIGI-YAGI 16U ¹⁾	DIGI-YAGI 18U	DIGI-YAGI 18U L8 ²⁾	DIGI-YAGI 18U L7 ³⁾
	DTX - 48 FGN	DTX - 48 FG	DTX - 48 GLT	DTX - 48 GLT7

DIAGRAM OF AMPLIFICATION / GRAF OJAČANJA



ANTENNA AMPLIFIERS FOR YAGI ANTENNAS

ANTENSKI OJAČEVALNIKI ZA YAGI ANTENE

GAIN = gain of passive antenna + amplification of DIGI-YAGI

Dobitek = dobitek pasivne antene + ojačanje DIGI-YAGI

Example / Primer:

antenna / antena DTX-48F:	+	DIGI YAGI 16U	=	active antenna / aktivna antena
16 dB(i)	+	16 dB	=	32 dB(i)

EXAMPLES OF USE / PRIMERI UPORABE

1st option / Prva opcija

Independent amplifier DIGI-YAGI

DTX "F" dipole's housing has to be opened and afterwards the existing passive balun has to be replaced by DIGI-YAGI amplifier. Tools are required for this intervention.

Samostojni ojačevalnik DIGI-YAGI

Plastično ohišje DTX "F" dipola je potrebno odpreti in zamenjati obstoječi pasivni simetrični člen z ojačevalnikom DIGI-YAGI. Za ta poseg je potrebno orodje.



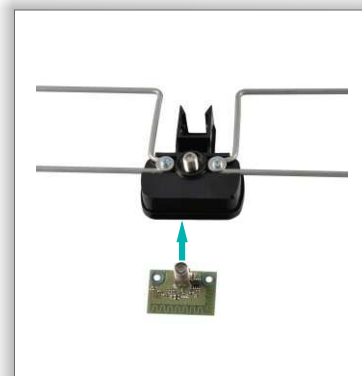
2nd option / Druga opcija

Complete active DTX "F" dipole

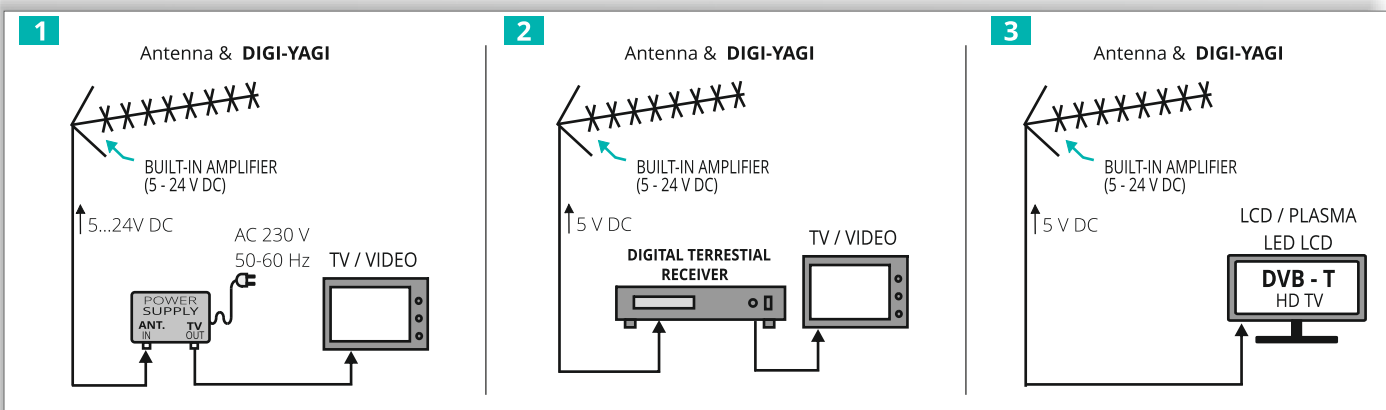
Amplifier DIGI-YAGI is already installed inside DTX "F" dipole. It is necessary to replace the existing passive DTX "F" dipole with an active DTX "F" dipole. Tools aren't required.

Kompleten aktivni DTX "F" dipol

Ojačevalnik DIGI-YAGI je že vgrajen v DTX "F" dipolu. Potrebno le zamenjati obstoječi pasivni DTX "F" dipol z tem aktivnim DTX "F" dipolom. Orodje ni potrebno.



EXAMPLES OF CONNECTION / PRIMERI PRIKLJUČITVE



LTE FILTERS FOR YAGI ANTENNAS

LTE FILTRI ZA YAGI ANTENE

LTE filters are built-in into balun. We have several different LTE CUT filters:

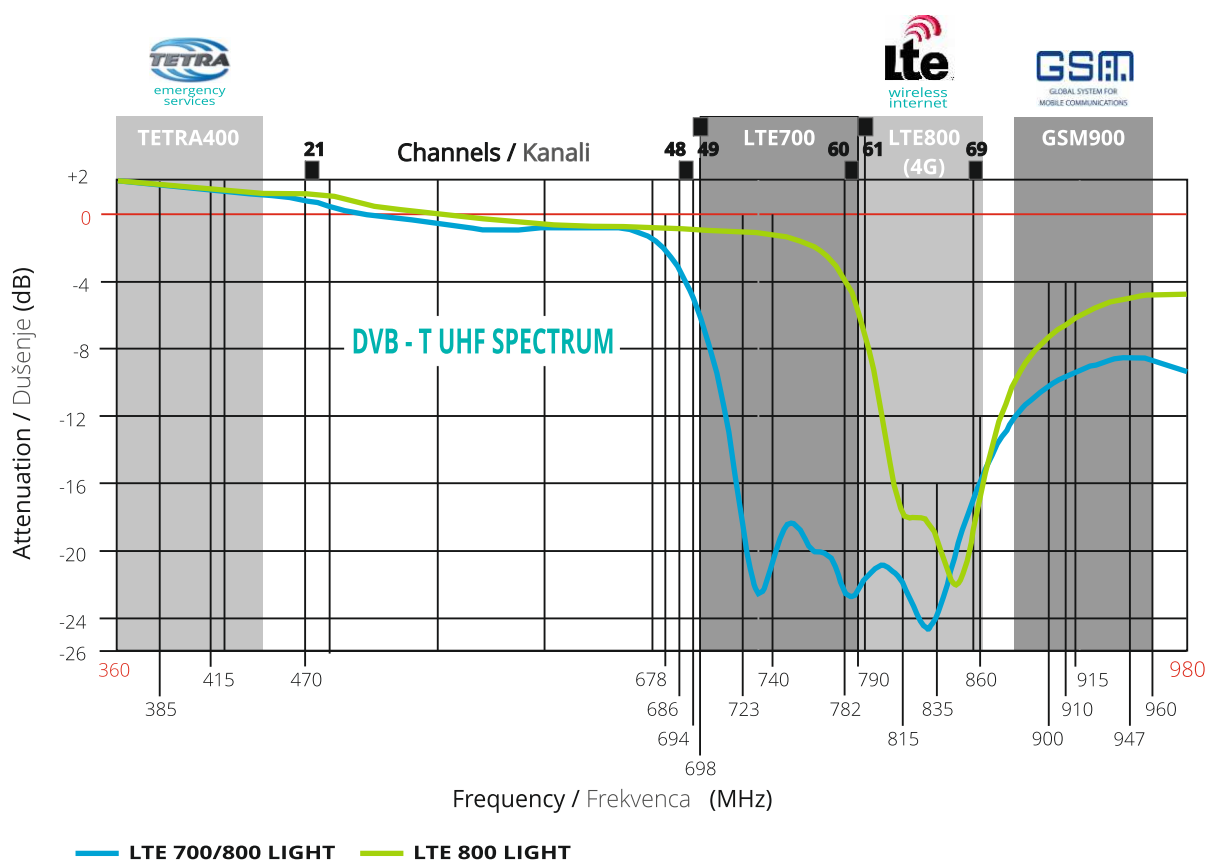
- **LTE 800 LIGHT** - Filter passes all frequencies from 470 to 790 MHz and primary cuts signals above 790 MHz.
- **LTE 700/800 LIGHT** - Filter passes all frequencies from 470 to 697 MHz and primary cuts signals above 697 MHz.

LTE filtri so vgrajeni v simetrični člen. Imamo več tipov LTE sesalnih filtrov:

- **LTE 800 LIGHT** - Spustijo vse frekvence 470 - 790 MHz in primarno zadušijo signale nad 790 MHz.
- **LTE 700/800 LIGHT** - Spustijo vse frekvence 470 - 697 MHz in primarno zadušijo signale nad 697 MHz.

TECHNICAL DATA / TEHNIČNI PODATKI		
Type / Tip	LTE 800 LIGHT	LTE 700/800 LIGHT
Function / Funkcija	Attenuating LTE 800 signals / Dušenje LTE 800 signalov	Attenuating LTE 700 + LTE 800 signals / Dušenje LTE 700 + LTE 800 signalov
Cutting frequencies / Dušenje frekvenc	791 - 862 MHz: - 20 dB	698 - 862 MHz: - 22 dB
Loss on Channels. / Slabljenje na kanalih	- 3.5 dB @ Ch.59 - 6.2 dB @ Ch.60	- 2.3 dB @ Ch.48 - 4.5 dB @ Ch.49
Pass freq. range - internal loss / Izguba na prep. pasu	470 - 790 MHz: <0.7 dB	470 - 695 MHz: <0.9 dB
Impedance / Impedanca	75 Ohm	
Connector / Konektor	"F" - female / "F" - ženski	
Electro-static protection / Elektrostatična zaščita	Yes / Da	
Additional mark in antenna - Eg. / Dodatna oznaka pri anteni - Npr.	DTX-22 FLT	DTX-22 FLT7

DIAGRAM OF ATTENUATION / GRAF DUŠENJA



ANTENNA AMPLIFIERS AND FILTERS - SUMMARY

ANTENSKI OJAČEVALNIKI IN FILTRI - SKUPNO

ANTENNA AMPLIFIERS / ANTENSKI OJAČEVALNIKI

TECHNICAL DATA / TEHNIČNI PODATKI

Amplifier type Tip ojačevalnika	Frequency range Frekvenčni pas	Amplification Ojačanje	Cutting freq. (notch filter) Dušenje frekv. (sesalni filter)	Noise figure Šumno št.	Additional mark in antenna - Eg. Dodatna oznaka pri anteni - primer	Use in antennas Uporaba v antenah	Additional info Dodatne informacije
DIGI-LOG 14U	Ch. 5 - 69 174 - 862 MHz	16 dB @ 5 - 24 V DC	-		P-2845 DTT/G	LOG - VHF/UHF	
DIGI-LOG 14VU L8 (filter LTE 800 LIGHT)	Ch. 5 - 60 174 - 790 MHz		791 - 862 MHz: - 20 dB		P-2845 GLT	LOG - UHF	page/ stran 17
DIGI-LOG 15R-U (NOTCH filters)	Ch. 21 - 69 470 - 862 MHz	15 dB @ 5 - 24 V DC	350 - 460 MHz: - 26 dB 890 - 960 MHz: - 24 dB		P-2845 G-SWITCH	LOG - UHF	
DIGI-YAGI 16-U (NOTCH filters)	Ch. 21 - 69 470 - 862 MHz		350 - 460 MHz: - 22 dB 890 - 960 MHz: - 20 dB	2 dB	DTX-48 FGN	YAGI - UHF	
DIGI-YAGI 18U		18 dB @ 5 - 24 V DC	-		DTX-48 FG	YAGI - UHF	page/ stran 30
DIGI-YAGI 18U L8 (filter LTE 800 LIGHT)	Ch. 21 - 60 470 - 790 MHz		791 - 862 MHz: - 20 dB		DTX-48 GLT	YAGI - UHF	
DIGI-YAGI 18U L7 (filter LTE 700/800 LIGHT)	Ch. 21 - 48 470 - 697 MHz		698 - 862 MHz: - 22 dB		DTX-48 GLT7	YAGI - UHF	
DIGI-YAGI 20VD (NOTCH filters)	Ch. 5 - 12 + DAB 170 - 240 MHz	20 dB @ 5 - 24 V DC	140 - 150 MHz: - 28 dB		VF-9 FG	YAGI - VHF Radio DAB	page/ stran 29

ANTENNA FILTERS / ANTENSKI FILTRI

TECHNICAL DATA / TEHNIČNI PODATKI

Filter type Tip filtra	Cutting frequencies Dušenje frekvenc	Loss on Channels Slabljene na kanalih	Pass freq. range - internal loss Izguba na prep. pasu	Additional mark in antenna - Eg. Dodatna oznaka pri anteni - primer	Use in antennas Uporaba v antenah	Additional info Dodatne informacije
LTE 800 LIGHT	791 - 862 MHz - 20 dB	-3.5 dB @ Ch.59 -6.2 dB @ Ch.60	0 - 790 MHz < 0.7 dB	P-2845 FLT	LOG - VHF/UHF	page / stran 19
LTE 700/800 LIGHT	698 - 862 MHz - 22 dB	-2.3 dB @ Ch.48 -4.5 dB @ Ch.49	0 - 697 MHz < 0.9 dB	P-2845 FLT7	LOG - VHF/UHF	
LTE 800 LIGHT	791 - 862 MHz - 20 dB	-3.5 dB @ Ch.59 -6.2 dB @ Ch.60	470 - 790 MHz < 0.7 dB	DTX-48 FLT	YAGI - UHF	page / stran 32
LTE 700/800 LIGHT	698 - 862 MHz - 22 dB	-2.3 dB @ Ch.48 -4.5 dB @ Ch.49	470 - 697 MHz < 0.9 dB	DTX-48 FLT7	YAGI - UHF	
LTE 800 HQ BASIC (with HQ SAW cut filters)	791 - 862 MHz - 30 dB	-2.1 dB @ Ch.59	470 - 697 MHz	DTX-48 FL	YAGI - UHF	on demand / na zahtevo
LTE 800 HQ PLUS * (with HQ SAW cut filters)	791 - 862 MHz - 35 dB	-3.5 dB @ Ch.60	< 1.2 dB	DTX-48 FL+	YAGI - UHF	

* LTE 800 HQ PLUS filter has additional notch / cut filters for TETRA 400 and GSM 900 frequencies.
LTE 800 HQ PLUS ima dodatne sesalne filtre za TETRA 400 in GSM 900 frekvence.

INDOOR ANTENNAS

SOBNE ANTENE

UHF
Ch. 21-69 (470 - 862 MHz)



G-2235-06



G-2235-07



G-2235-10

Impedance
Impedanca

75 Ohm

Power supply
Napajanje

AC 230 V / 50 Hz
DC 12 V / 100 mA

Connector for connection on TV set
Konektor za priklop na TV IEC 169-2 male / moški

Type Tip	Channels (frequency) Kanali (frekvenca)	Common gain Skupni dobitek	Gain control Kontrola dobitka	Packing Pakiranje		
				pcs. kos.	cm	m ³
G-2235-06	Ch. 2-12 (47 - 230 MHz) (I - III band) Ch. 21-60 (470 - 790 MHz) (IV - V band)	Ch. 2-12 (47 - 230 MHz): 20 dB Ch. 21-60 (470 - 790 MHz): max. 36 dB	VHF 15 dB UHF 25 dB	10	70 x 47 x 29	0.095
G-2235-07 *	Ch. 2-12 (47 - 230 MHz) (I - III band) Ch. 21-60 (470 - 790 MHz) (IV - V band)	Ch. 2-12 (47 - 230 MHz): 26 dB Ch. 21-60 (470 - 790 MHz): max. 36 dB	VHF 15 dB UHF 25 dB	10	72 x 65 x 30	0.140
G-2235-10	Ch. 2-12 (47 - 230 MHz) (I - III band) Ch. 21-60 (470 - 790 MHz) (IV - V band)	Ch. 2-12 (47 - 230 MHz): 20 dB Ch. 21-60 (470 - 790 MHz): 25 dB	20 dB	10	34 x 35 x 48	0.057

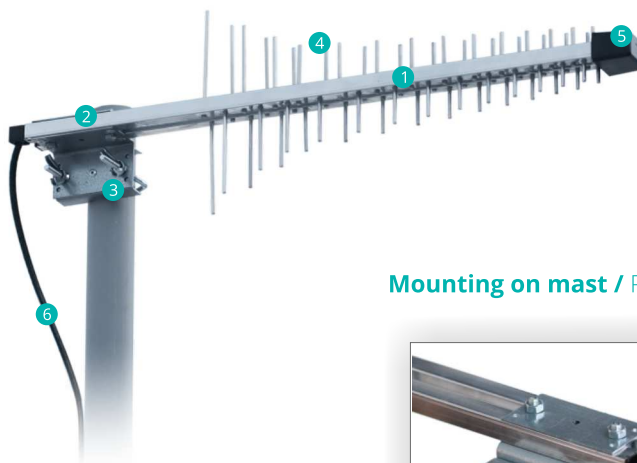
All indoor antennas have built-in LTE-800 filter. They are suitable for radio DAB+ receiving.
Vse sobne antene imajo vgrajen LTE-800 filter. So ustrezne za sprejem radio DAB+ signalov.

* Antenna G-2235-07 can operate with directly connected to an external DC 12V source (car, boat, caravan etc.) too.
Anteno G-2235-07 lahko priključimo na direktni izvir 12V enosmernega toka (avto, plovilo, karavan prikolica, itd.).

MOBILE NETWORK ANTENNAS

ANTENE ZA MOBILNA OMREŽJA

- 1 Antenna carriers / Nosilca antene
Aluminium tube / aluminijasta cev
- 2 Iron parts / Kovinski deli
hot galvanized steel / vroče cinkano jeklo
- 3 Fixing to mast / Pritrditev antene na drog
"U" screw M6, without inclination
"U" vijak M6, brez inklinacije
outside mast diameter / zunanji premer droga
D = 20 ... 50 mm
- 4 Directors / Direktorji
aluminium rods / palice iz aluminija
dia. ϕ 4 mm
- 5 Plastics / Plastika
ABS UV resistant / ABS UV obstojna
- 6 Coaxial cable with connector at the end of the cable /
Koaksialni kabel z konektorjem na koncu kabla



Mounting on mast / Pritrditev na drog



Standard coax. cable length is 10 m. It is possible to order antenna with different coax. cable length and different connector: SMA, FME, N ...

Standardna dolžina koaks. kabla je 10 m. Lahko naročite anteno z drugo dolžino koaks. kabla in konektorjem SMA, FME, N ...



Mobile network antenna is used primarily for the reception of 2G/3G/4G/5G mobile operator's signals in areas where mobile communication is impossible due to low signal level. The antenna is connected via connector directly on the mobile phone or on the card for wireless internet (e.g. 3G/4G USB modem or LTE Wi-Fi router). Additional adapter for connecting antenna to your 3G/4G modem is probably required. Some mobile network antennas are used for wireless LAN signal transmission. Brand new mobile network antennas cover the entire freq. range from LTE 700 to LTE 5G 3,8 GHz (698 to 3800 MHz).

Mobile network antenna has reliable and robust design for optimal performance and long life time expectancy. Antenna does not require additional assembling, because it's already assembled.

Impedance of all mobile network antennas is 50 Ohm. Maximum connecting power of all mobile network antenna antennas is 50 Watt.

Antena za mobilna omrežja se uporablja predvsem za sprejem 2G/3G/4G/5G signala mobilnih operaterjev na področjih, kjer je uporaba mobilnega aparata nemogoča zaradi prenizkega nivoja signala. Antena se priklopi preko vgrajenega konektorja direktno na mobilni aparat ali na kartico za brezžični internet (npr. 3G/4G USB modem ali na LTE Wi-Fi usmerjevalnik). Za prikllop antene na modem boste verjetno potrebovali še dodatni adapter.

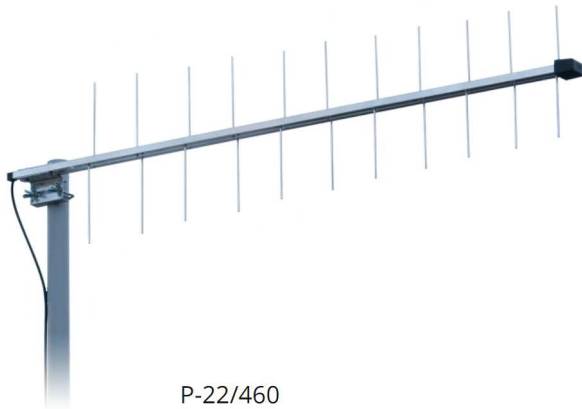
Nekatere antene za mobilna omrežja se uporabljajo tudi za prenos brezžičnega LAN signala. Najnovejše antene za mobilna omrežja pokrivajo celoten frekvenčni pas od LTE 700 do LTE 5G 3,8 GHz (od 698 do 3800 MHz).

Antena za mobilna omrežja ima zanesljiv in robusten dizajn za optimalno delovanje in dolgo življenjsko dobo. Antene ni potrebno sestavljati pred montažo na drog, saj so vsi sprejemni deli že mehansko sestavljeni.

Impedanca vseh anten za mobilna omrežja je 50 Ohm. Največja priključna moč vseh anten za mobilna omrežja je 50 W.

MOBILE NETWORK ANTENNAS - TETRA400, GSM

ANTENE ZA MOBILNA OMREŽJA - TETRA400, GSM



P-22/460



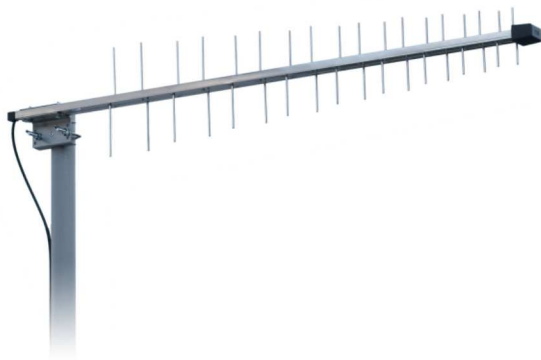
P-28 TETRA400/GSM

TECHNICAL DATA / TEHNIČNI PODATKI

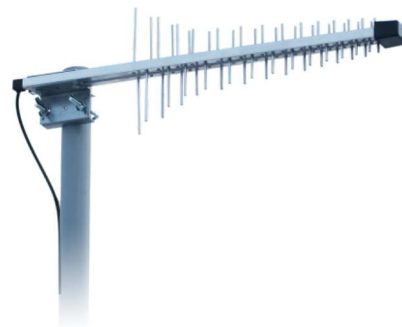
Type Tip	Channels (frequency) Kanali (frekvenca)	No. of elements Število elementov	Gain Dobitek	F/B ratio Razmerje naprej-nazaj	Beam width Širina glav. lista	Max. VSWR Maks. VSWR	Lenght Dolžina antene	Packing Pakiranje		
								pcs. kos	cm	m ³
P-16 GSM	GSM (850 - 960 MHz)	16	9 dB(i)	20 dB	Horiz. 68° Vert. 64°	1.6 : 1	49.5 cm	15	111 x 34 x 27	0.102
P-18 TETRA400	TETRA400 (380 - 500 MHz)	18	10 dB(i)	21 dB	Horiz. 78° Vert. 60°	<1.5 : 1	97.5 cm	10	100 x 78.5 x 17	0.133
P-18/460	TETRA400 (450 - 470 MHz)	18	11 dB(i)	23 dB	Horiz. 76° Vert. 53°	<1.5 : 1	100 cm	10	117 x 37 x 29	0.126
P-22/460	TETRA400 (450 - 470 MHz)	22	12 dB(i)	25 dB	Horiz. 49° Vert. 73°	<1.5 : 1	123.5 cm	10	144 x 33.5 x 30	0.145
P-28 TETRA400/GSM	TETRA400/GSM (380 - 960 MHz)	28	8 - 10 dB(i)	22 dB	Horiz. 80° Vert. 62°	<1.5 : 1	82 cm	10	94 x 47 x 34	0.150
P-36 GSM	GSM (850 - 960 MHz)	36	11 dB(i)	26 dB	Horiz. 48° Vert. 57°	<1.5 : 1	100 cm	10	111 x 34 x 27	0.102
P-54 GSM/UMTS	GSM (850 - 960 MHz) DCS (1710 - 1880 MHz) UMTS (1920 - 2170 MHz)	54	10 - 12 dB(i)	24 dB	Horiz. 43° Vert. 34°	<1.6 : 1	56.5 cm	15	111 x 34 x 27	0.102

MOBILE NETWORK ANTENNAS - TETRA400, GSM

ANTENE ZA MOBILNA OMREŽJA - TETRA400, GSM

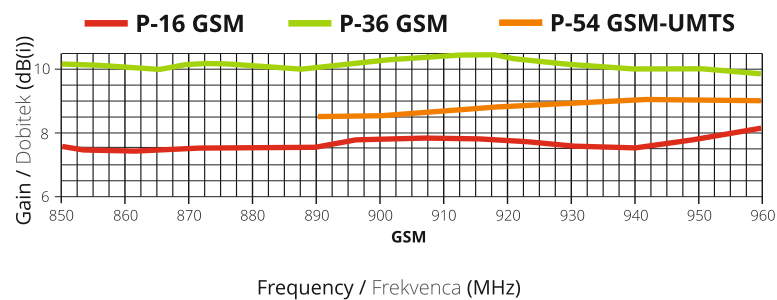
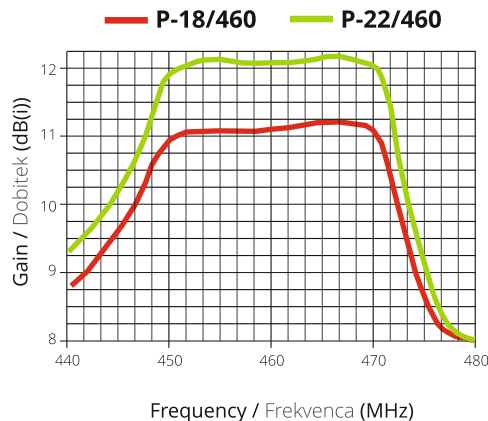
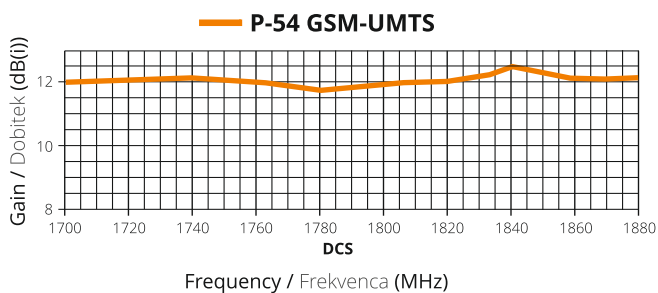
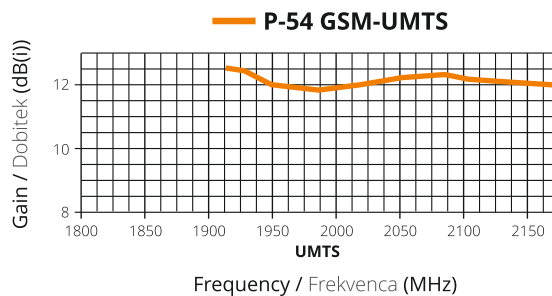
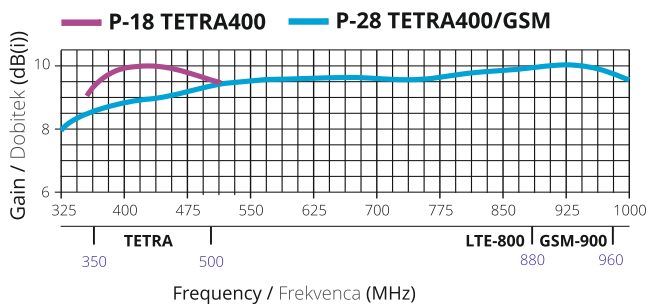


P-36 GSM



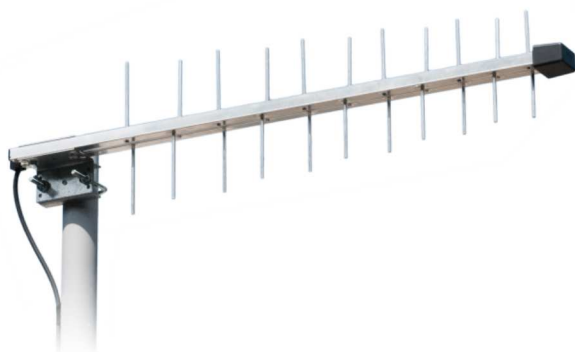
P-54 GSM/UMTS

DIAGRAMS OF GAINS / GRAFI DOBITKOV



MOBILE NETWORK ANTENNAS - NARROW BAND

ANTENE ZA MOBILNA OMREŽJA - OZKOPASOVNE



P-22 LTE



P-24 WL

TECHNICAL DATA / TEHNIČNI PODATKI

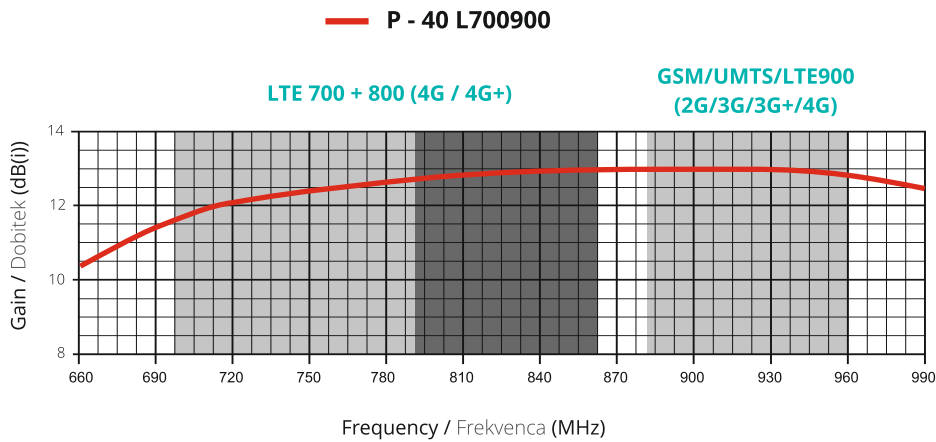
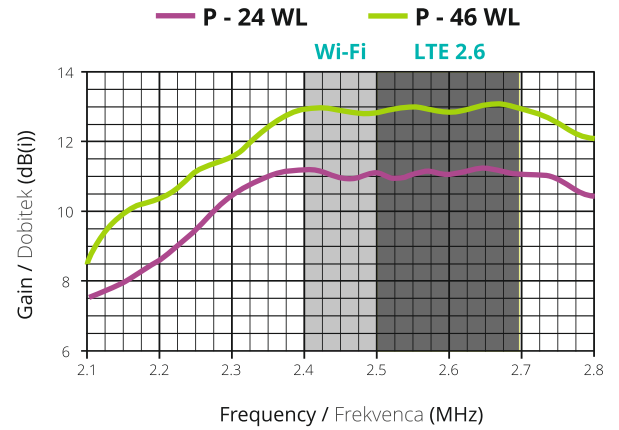
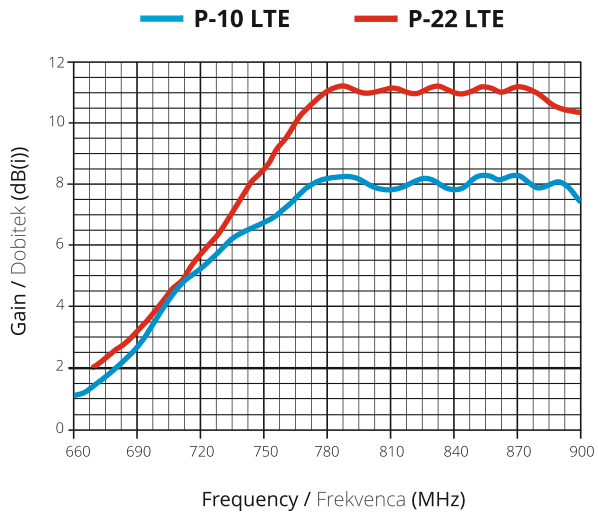
Type Tip	Channels (frequency) Kanali (frekvenca)	No. of elements Število elementov	Gain Dobitek	F/B ratio Razmerje naprej-nazaj	Beam width Širina glav. lista	Max. VSWR Maks. VSWR	Lenght Dolžina antene	Packing Pakiranje		
								pcs. kos	cm	m ³
P-10 LTE *	800 MHz (790 - 862 MHz)	10	8 dB(i)	22 dB	Horiz. 82° Vert. 60°	1.8 : 1	38.5 cm	1	39 x 25 x 7	0.007
								10	81 x 36 x 17	0.050
P-22 LTE *		22	11 dB(i)	24 dB	Horiz. 66° Vert. 52°	1.7 : 1	78.5 cm	1	80 x 25 x 7	0.014
								10	92 x 33 x 29	0.090
P-40 L700900 *	700 MHz (698 - 790 MHz) 800 MHz (790 - 862 MHz) 900 MHz (880 - 960 MHz)	40	13 dB(i)	25 dB	Horiz. 50° Vert. 54°	1.5 : 1	125 cm	5	129 x 41 x 28	0.148
P-24 WL	Wi-Fi & LTE 2.6 2.4 - 2.7 GHz	24	11 dB(i)	24 dB	Horiz. 48° Vert. 34°	1.6 : 1	41 cm	25	92 x 33 x 29	0.088
P-46 WL		46	13 dB(i)	25 dB	Horiz. 26° Vert. 22°	1.5 : 1	63.5 cm	20	111 x 34 x 27	0.102

* Antenna is also available in MIMO version (see page 43) / Antena je na voljo tudi v MIMO izvedbi (glej stran 43)

MOBILE NETWORK ANTENNAS - NARROW BAND

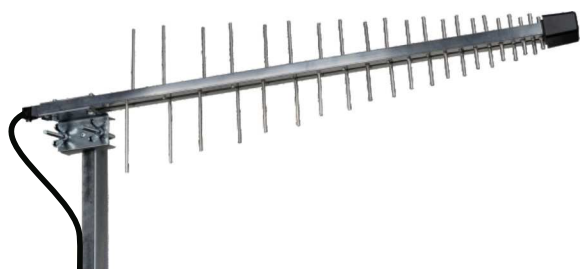
ANTENE ZA MOBILNA OMREŽJA - OZKOPASOVNE

DIAGRAMS OF GAINS / GRAFI DOBITKOV

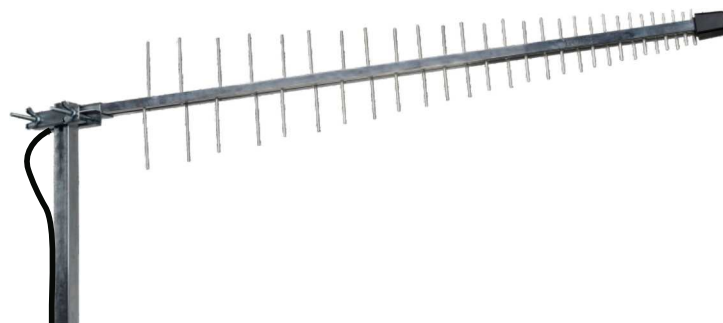


MOBILE NETWORK ANTENNAS - UNICOM

ANTENE ZA MOBILNA OMREŽJA - UNICOM



P-42 UNICOM



P-56 UNICOM

TECHNICAL DATA / TEHNIČNI PODATKI

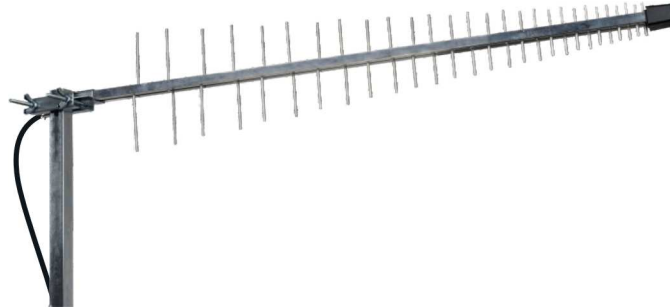
Type Tip	Channels (frequency) Kanali (frekvenca)	No. of elements Število elementov	Gain Dobitek	F/B ratio Razmerje naprej-nazaj	Beam width Širina glav. lista	Max. VSWR Maks. VSWR	Lenght Dolžina antene	Packing Pakiranje		
								pcs. kos	cm	m ³
P-30 UNICOM		30	6.5 - 8 dB(i)	23 dB	Horiz. 76° Vert. 68°		45 cm	20	92 x 33 x 29	0.088
P-42 UNICOM	800 MHz - 2600 MHz (790 MHz - 2.7 GHz)	42	8 - 9.5 dB(i)	23 dB	Horiz. 64° Vert. 56°	<1.5 : 1	72 cm	10	111 x 34 x 16	0.060
P-56 UNICOM		56	9.5 - 11.5 dB(i)	24 dB	Horiz. 52° Vert. 44°		98 cm	10	111 x 34 x 27	0.102
P-32 L700 UNI	700 MHz - 2600 MHz (698 MHz - 2.7 GHz)	32	7 - 9 dB(i)	22 dB	Horiz. 74° Vert. 66°		58 cm	20	121 x 33 x 29.5	0.118
P-58 L700 UNI		58	9 - 11 dB(i)	23 dB	Horiz. 54° Vert. 46°	<1.6 : 1	107 cm	10	111 x 34 x 27	0.102
P-36 5G 7003800*	700 MHz - 3800 MHz (698 MHz - 3.8 GHz)	34	4 - 7.5 dB(i)	22 dB	Horiz. 72° Vert. 64°	<1.7 : 1	59 cm	20	119 x 40 x 27.5	0.131
P-60 5G 7003800*		60	7.5 - 10.5 dB(i)	23 dB	Horiz. 52° Vert. 44°	<1.6 : 1	110 cm	10	119 x 40 x 27.5	0.131

Antennas are also available in MIMO version (see page 43).
Antene so dobavljive tudi v MIMO izvedbi (glej str. 43)

* Support 2G / 3G / 4G / 5G
Podpira tehnologije 2G / 3G / 4G / 5G

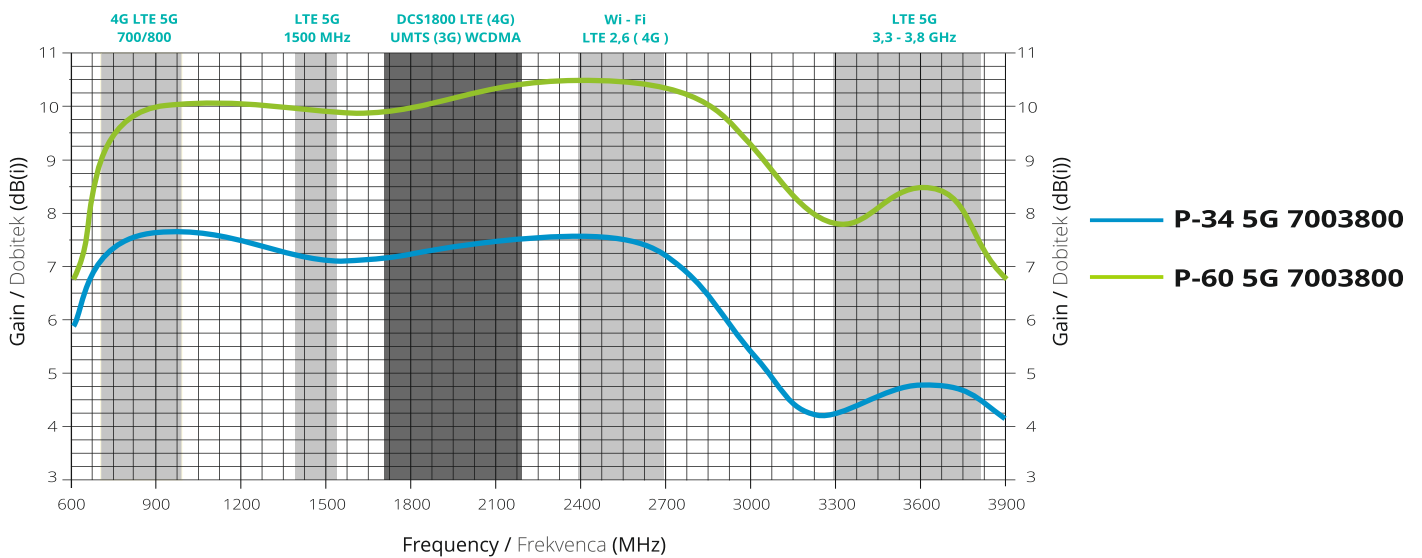
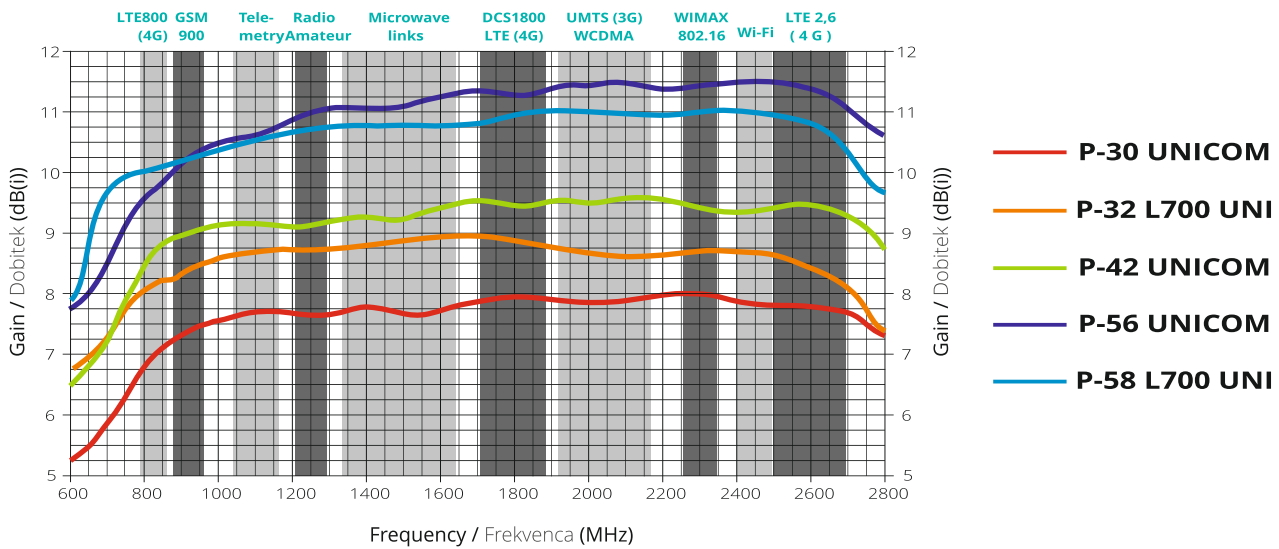
MOBILE NETWORK ANTENNAS - UNICOM

ANTENE ZA MOBILNA OMREŽJA - UNICOM



P-58 L700 UNI

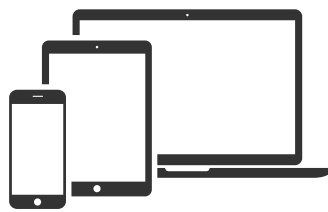
DIAGRAM OF GAINS / GRAF DOBITKOV



MOBILE NETWORK ANTENNAS - UNICOM

ANTENE ZA MOBILNA OMREŽJA - UNICOM

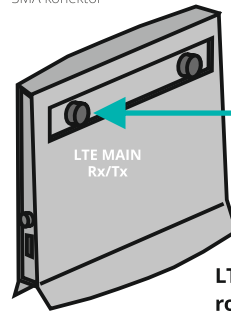
EXAMPLES OF CONNECTION /
PRIMERI PRIKLJUČITVE



CELLPHONE / TABLET / NOTEBOOK
PAMETNI TELEFON / TABLICA / PRENOSNIK

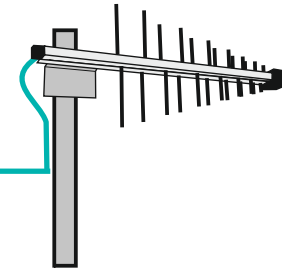


SMA connector
SMA konektor



LTE Wi-Fi router
usmerjevalnik

coax. cable
koaks. kabel
50 Ohm
L=10m



ANTENNA
ANTENA

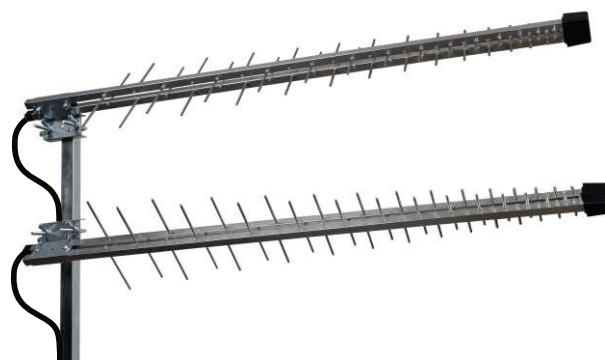
**3/4/5G
BASE STATION**
BAZNA POSTAJA

MOBILE NETWORK ANTENNAS - MIMO

ANTENE ZA MOBILNA OMREŽJA - MIMO



P-30 UNICOM MIMO



P-56 UNICOM MIMO

TECHNICAL DATA / TEHNIČNI PODATKI

Type Tip	3G 4G LTE 5G (frequency) 3G 4G LTE 5G (frekvenca)	No. of elements Število elementov	Gain Dobitek	F/B ratio Razmerje naprej-nazaj	Beam width Širina glav. lista	Max. VSWR Maks. VSWR	Lenght Dolžina antene	Packing * Pakiranje *		
								pcs. kos	cm	m ³
P-10 LTE MIMO	800 MHz (790 - 862 MHz)	10	8 dB(i)	22 dB	Horiz. 82° Vert. 60°	1.8 : 1	38.5 cm	5	81 x 36 x 17	0.050
P-22 LTE MIMO	700 MHz (698 - 790 MHz)	22	11 dB(i)	24 dB	Horiz. 66° Vert. 52°	1.7 : 1	78.5 cm	5	92 x 33 x 29	0.090
P-40 L700900 MIMO	800 MHz (790 - 862 MHz) 900 MHz (880 - 960 MHz)	40	13 dB(i)	25 dB	Horiz. 50° Vert. 54°	<1.5 : 1	125 cm	5	129 x 41 x 28	0.148
P-30 UNICOM MIMO		30	6.5 - 8 dB(i)	23 dB	Horiz. 76° Vert. 68°		45 cm	10	92 x 33 x 29	0.088
P-42 UNICOM MIMO	800 MHz - 2600 MHz (790 MHz - 2.7 GHz)	42	8 - 9.5 dB(i)	23 dB	Horiz. 64° Vert. 56°	<1.5 : 1	72 cm	5	111 x 34 x 16	0.060
P-56 UNICOM MIMO		56	9.5 - 11.5 dB(i)	24 dB	Horiz. 52° Vert. 44°		98 cm	5	111 x 34 x 27	0.102
P-32 L700 U-MIMO	700 MHz - 2600 MHz (698 MHz - 2.7 GHz)	32	7 - 9 dB(i)	22 dB	Horiz. 74° Vert. 66°		58 cm	10	121 x 33 x 29.5	0.118
P-58 L700 U-MIMO		58	9 - 11 dB(i)	23 dB	Horiz. 54° Vert. 46°	<1.6 : 1	107 cm	5	111 x 34 x 27	0.102
P-34 5G 7003800 MIMO **	700 MHz - 3800 MHz (698 MHz - 3.8 GHz)	34	4 - 7.5 dB(i)	22 dB	Horiz. 72° Vert. 64°	<1.7 : 1	59 cm	10	119 x 40 x 27.5	0.131
P-60 5G 7003800 MIMO **		60	7.5 - 10.5 dB(i)	23 dB	Horiz. 52° Vert. 44°	<1.6 : 1	110 cm	5	119 x 40 x 27.5	0.131

Gain diagram for each antenna is the same as for standard UNICOM/LTE antenna (see previous pages on this catalogue). /
Graf dobitek za vsako anteno je enak kot za standardno UNICOM/LTE anteno (glej predhodne strani v tem katalogu).

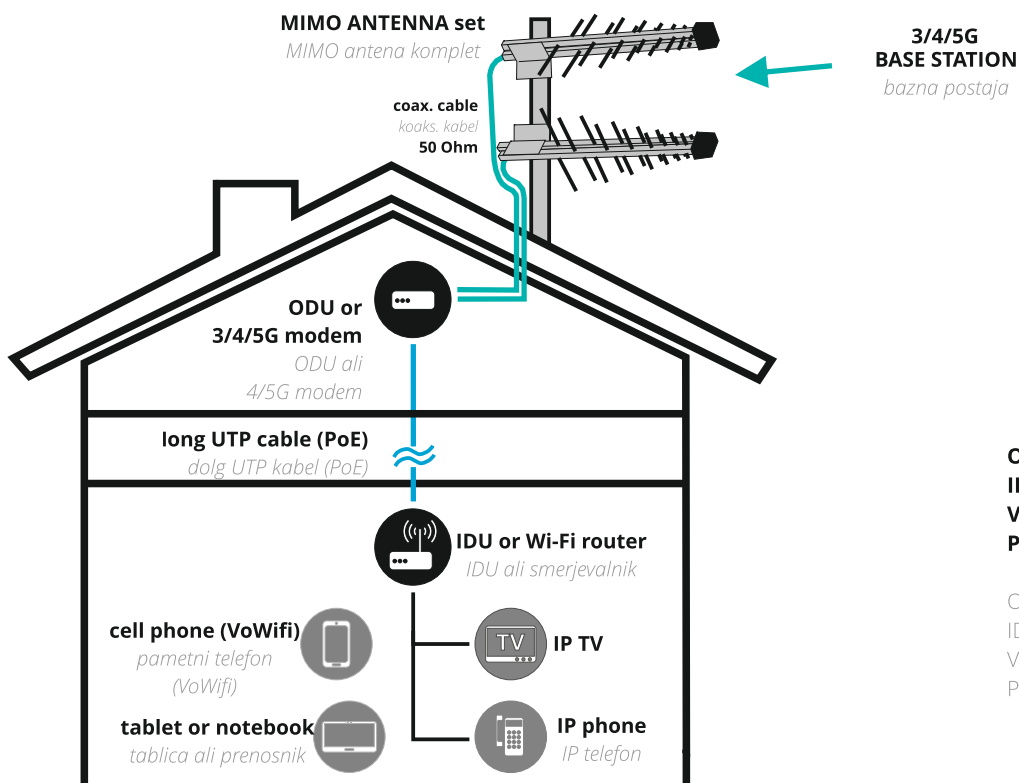
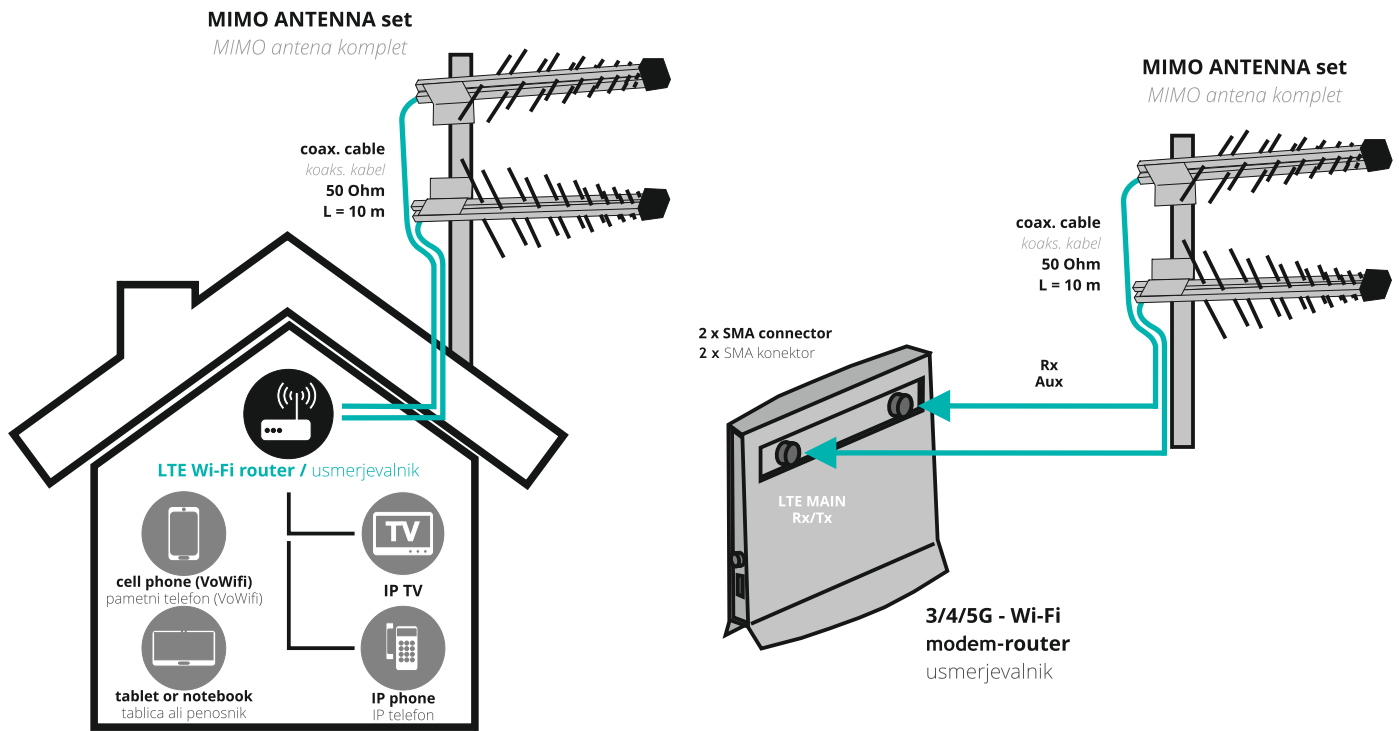
* One set contain two antennas (one for upper and one for lower mounting position). Each antenna has 10 m coax. cable and SMA male connector /
En komplet vsebuje dve anteni (eno za zgornjo in eno za spodnjo montažno pozicijo na drogu). Vsaka antena ima 10 m koaks. kabla in SMA moški konektor.

** Support 2G / 3G / 4G / 5G
Podpira tehnologije 2G / 3G / 4G / 5G

MOBILE NETWORK ANTENNAS - MIMO

ANTENE ZA MOBILNA OMREŽJA - MIMO

EXAMPLES OF CONNECTION / PRIMERI PRIKLJUČITVE



ODU ... outdoor unit
IDU ... indoor unit
VoWifi ... voice over Wi-Fi
PoE ... power over ethernet

ODU ... zunanja enota
IDU ... notranja enota
VoWifi ... zvok preko Wi-Fi
PoE ... napajanje preko etherneteta

ANTENNAS POWER SUPPLY

ANTENSKI NAPAVALNIK



12 V/150 mA STI

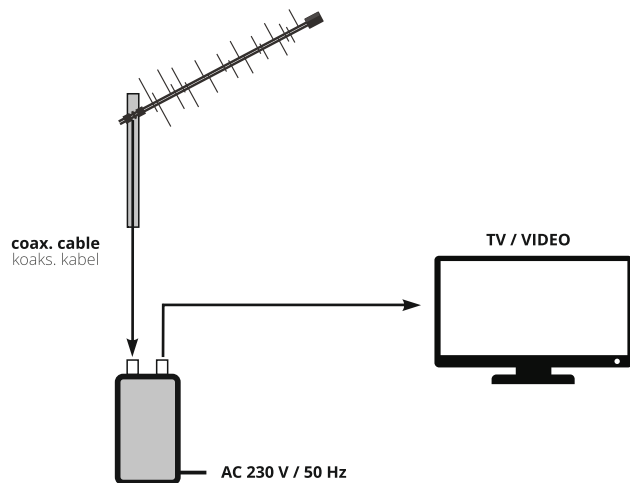
TECHNICAL DATA / TEHNIČNI PODATKI

Type Tip	Power supply Omrežna napetost	Impedance Impedanca	Output voltage Izhodna napetost	Max. output current Maksimalni izhodni tok	Connection to antenna (input) Konektor za priklop antene (vhod)	Connection to antenna (output) Konektor za priklop antene (izhod)	Packing Pakiranje		
							pcs. kos.	cm	m ³
12 V/150 mA STI	AC 230 V	75 Ohm	DC 12 V	150 mA	1 x "F" female 1 x "F" ženski	1 x "F" female 1 x "F" ženski	1	9 x 5.5 x 10	0.0005

EXAMPLE OF CONNECTION / PRIMER PRIKLJUČITVE

ANTENNA with amplifier or active filter

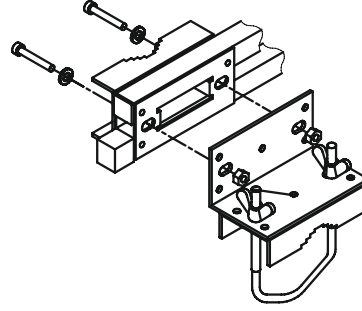
ANTENA z ojačevalnikom ali aktivnim filtrom



POWER SUPPLY
NAPAVALNIK

ACCESSORIES

PRIBOR



Vertical mounting part **D2-V** is used as additional part for LOG antennas. LOG antennas can be used for vertical polarisation with **D2-V** part. It has to be mounted on LOG antenna with screws, washers and nuts (included).

Vertikalni pritrdilec D2-V se uporablja kot dodatni montažni element za LOG antene. Z njim lahko pritrdimo LOG anteno na drog za uporabo antene pri vertikalni polarizaciji. Vgradi se na LOG anteno z vijaki, podložkami in maticami (so priloženi)

We offer complete assortment of terrestrial and mobile network systems accessories.

Nudimo vam tudi kompleten pribor za zemeljske antene in mobilna omrežja.



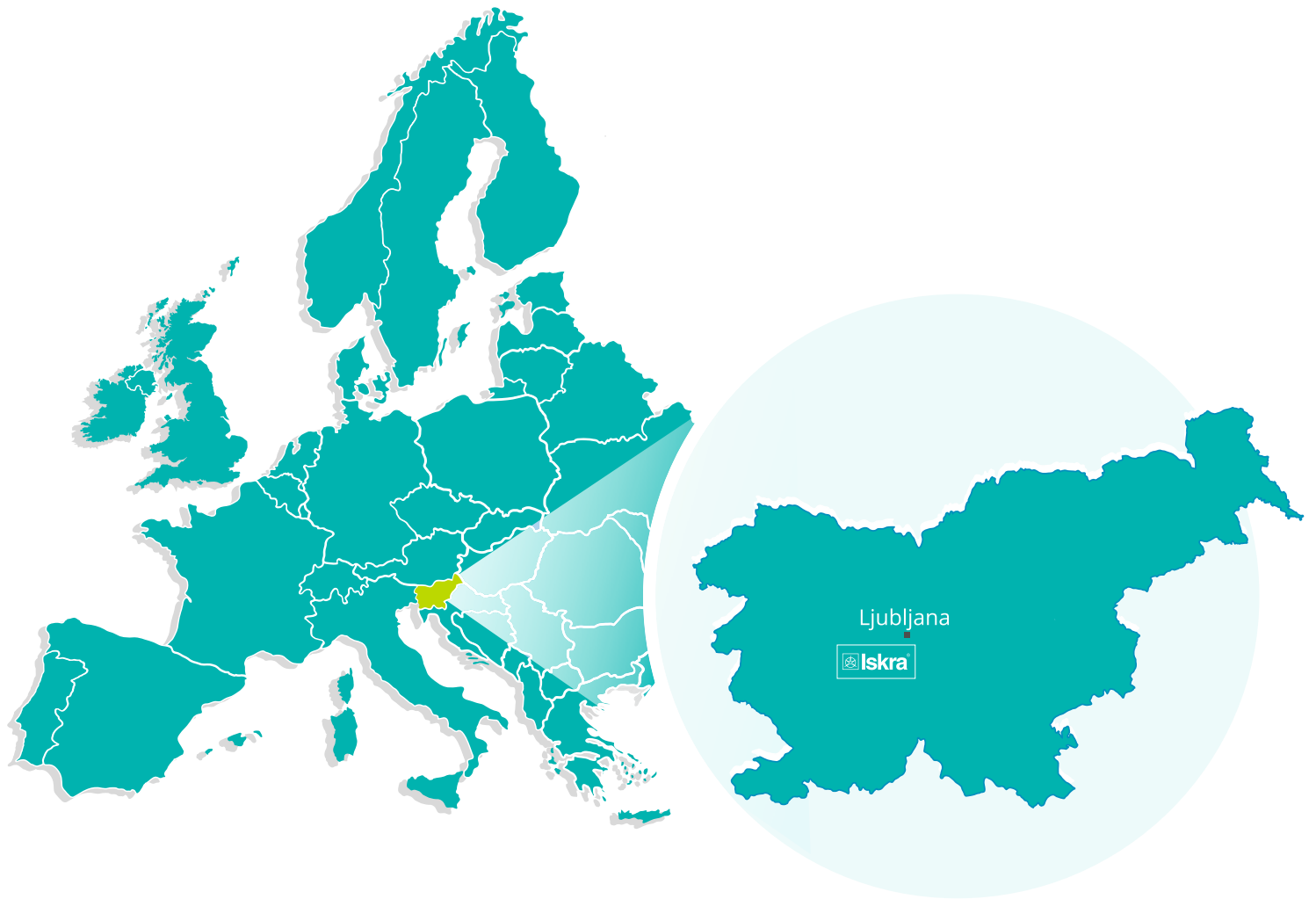
Mast brackets
Pritrdilci za drogove



Coaxial cables (50 Ω , 75 Ω) & Extensions
Koaksialni kabli (50 Ω , 75 Ω) in podaljški



Different antenna carriers
Različni nosilci anten



Headquarter

Stegne 21
SI-1000 , Ljubljana
Phone: + 386 1 513 10 00

BU Capacitors

Vajdova ulica 71
SI-8333 , Semič
Phone: +386 7 38 49 200

BU MIS

Ljubljanska c. 24a
SI-4000 , Kranj
Phone: +386 4 237 21 12

BU Electroplating

Glinek 5
SI-1291 , Škofljica
Phone: +386 1 366 80 50

BU Batteries

Šentvid pri Stični 108
SI-1296 , Šentvid pri Stični
Phone: +386 1 780 08 00

Iskra STIK, d.o.o.

Ljubljanska cesta 24a
SI-4000 , Kranj
Phone: +386 4 237 22 33

Iskra IP, d.o.o.

Metliška cesta 8
SI-8333 , Semič
Phone: +386 7 384 94 54

Iskra ODM, d.o.o.

Stegne 21
SI-1000 , Ljubljana
Phone: +386 1 513 10 00

Iskra Lotrič, d.o.o.

Otoče 5a
SI-4244 , Podnart
Phone: +386 4 535 91 68

Iskra Sistemi - M dooel

Ul. Dame Gruev br. 16/5 kat
1000 , Skopje
Phone: +389 75 444 498

Iskra Tela L, d.o.o.

Omladinska 66
78250 , Laktaši
Phone: +387 51 535 890

Iskra Hong Kong Ltd.

33 Canton Road, T.S.T.
1705 , China HK City
Phone: +852 273 00 917

Iskra Commerce, d.o.o.

Ul. Jurija Gagarina
11000 , Beograd
Phone: +381 11 2755110



ISKRA, d.o.o.
Stegne 21
SI-1000 Ljubljana, Slovenia

Phone: +386 (0) 1 500 44 04
www.iskra.eu