PRODUCTS OVERVIEW

SKARD-
Electronics, JSC

ANTENNAS AND ANTENNA SYSTEMS

WAVEGUIDE COMPONENTS

MICROWAVE/RF COMPONENTS

PRODUCT OVERVIEW

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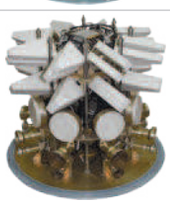
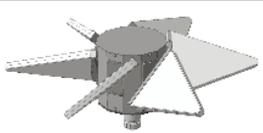
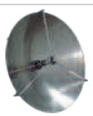
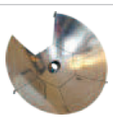
CIRCULAR MULTIBEAM ANTENNA ARRAYS

Product name	Product appearance*	Frequency range, GHz	Number of frequency subrange	Number of feeds in the subrange	Frequency subrange, GHz	Subrange Gain, dB	Half-power beamwidth, deg.	Dimensions, mm	Weight, kg
ASKM2/6-0.4/6		0,4 – 6,0	2	6	0,4 - 1,0	-1,0 to 3,0	90 ÷ 60	D = 1140, H = 627	45
					1,0 - 6,0	3,0 to 7,0	80 ÷ 60		
ASKM1/8-0.9/18		0,9 - 18,0	1	8	0,9 - 18,0	-5,0 to 2,0	100 ÷ 60	D = 409, H = 233	10
ASKM3/8-0.9/18		0,9 - 18,0	3	8	0,9 - 8,0	-5,0 to 2,0	100 ÷ 70	D = 590, H = 322	25
					8,0 - 12,0	11,5 to 12,5	40 ÷ 45		
					12,0 - 18,0	9,0 to 11,5	40 ÷ 47		
ASKM5/8-0.9/18		0,9 - 18,0	5	8	0,9 – 2,0	-5,0 to -3,0	100 ÷ 90	D = 634, H = 507	35
					2,0 - 4,0	6,0 to 8,0	60 ÷ 47		
					4,0 – 8,0	6,0 to 8,0	60 ÷ 40		
					8,0 - 12,0	11,5 to 12,5	40 ÷ 45		
					12,0 - 18,0	9,0 to 11,5	40 ÷ 47		
ASKM2/6-0.9/40		0,9 - 40,0	2	8	0,9 - 18,0	-5,0 to -2,0	100 ÷ 60	D = 530, H = 517	20
					18,0 - 40,0	-4,0 to 2,0	50 ÷ 90		
ASKM1/6-1.0/18		1,0 - 18,0	1	6	1,0 - 18,0	4,0 to 7,0	60 ÷ 70	D = 820, H = 313	15

* The photo shows products without an external radiotransparent case.

- Antenna arrays are designed to detect and find direction of radio frequency signals;
- Can be installed on stationary objects or cars;
- Operating temperature range : from -40°C to +50°C;
- The device has a built-in chassis for installing instrument modules of 3 U format (downconverters, receivers, etc.).

PRECISION REFLECTOR ANTENNAS

Product name	Product appearance	System type	Frequency band name or frequency range	Surface Accuracy (RMS)	Reflector diameter, mm	Subreflector diameter, mm	Type feed system	Dimensions, mm*	Weight, kg
ZA8-1.5		Cassegrain	C(H), X, Ku, K	0,04	1500	268	Scalar narrowband	D = 1500, H = 475	100
ZA6-1.2		Cassegrain	X, Ku, K	0,04	1200	120	Scalar narrowband	D = 1231, H = 370	32
ZA4-0.9		Cassegrain	Ku, K, Ka, Q	0,035	900	92	Scalar narrowband	D = 917, H = 380	15,7
RZA4-0.9		Cassegrain, dismountable**	Ku, K, Ka, Q	0,04	900	92	Scalar narrowband	D = 917, H = 380	15,7
ZA5-0.4		Cassegrain	K, Ka, Q, U, V, W	0,025	400	62	Scalar narrowband	D = 428, H = 173	2,6
ZA7-0.4		ADE	K, Ka, Q, U, V, W	0,025	400	---***	Scalar narrowband	420 x 420 x 73	5,6
ZA1-0.3		Offset	18,0 GHz – 40,0 GHz	0,025	300	---	Biorthogonal quad-ridged horn	417 x 340 x 438	2,5
ZA9-0.25		ADE	18,0 GHz – 40,0 GHz or 40,0 GHz – 60,0 GHz or 60,0 GHz – 75,0 GHz or 75,0 GHz – 90,0 GHz or 90,0 GHz – 110,0 GHz	0,025	250	---***	Broadband conical horn	D = 250, H = 105	2,2

* Excluding feed dimensions;
** Number of reflector segments: 7;
*** Depending on the frequency range.

- Precision reflector antennas can be used for radiomonitoring and satellite communications as Rx/Tx antennas;
- Reflector ZA7-0.4 is made in the form of a square for easy integration into antenna arrays;
- Manufacturing technology: precision milling aluminum.

P6-900/1 & P6-900/2 MEASURING ANTENNA SYSTEMS WITH BUILT-IN FREQUENCY DOWNCONVERTER

The antennas are designed to finding and measure the parameters of signals and noise in the EHF frequency range with subsequent conversion to the operating range of the spectrum analyzer.

Specifications

Model:	P6-900/1	P6-900/2
Frequency range (Input frequency range), GHz	40 - 60	60 - 75
Output frequency range, GHz	4 - 24	9 - 24
Type of antenna system	ADE	
Reflector diameter, mm	250	
Half-power beamwidth (by level -3dB), deg.	2 - 1,5	1,5 - 1
Gain, dB	≥60	
Noise figure, dB	≤14	≤18
Image channel attenuation, dB	50	
External power supply	+12V, PC4 connector	
Dimensions, mm	288 x 250 x 241	
Weight, kg	2,4	

MAGNETIC AND ELECTRIC FIELD ANTENNAS

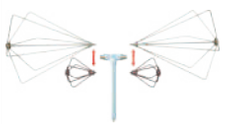
Product name	Product appearance	Frequency range	H-Field Antenna factor, typ. dB(1/m)	E-Field Antenna factor, typ. dB(1/m)	VSWR	Connector type	Dimensions, mm	Weight, kg	Basic function / Feature
P6-118		10 Hz – 500 kHz	23,6 to -23,2	75,1 to 28,3	-	SMA	200 x 150 x 50	0,35	Measurements magnetic field Active
P6-119		9 kHz – 30 MHz	-49,5 to -16,9	2,0 to 34,6	-	N	690 x 599 x 84 Loop diameter: 599	2,5	Measurements magnetic field Active
P6-319		9 kHz – 30 MHz	86,1 to 41,5 (loop)	109,1 to 38,5 (rod)	≤1,8	N	1145 x 890 x 487 Loop diameter: 890 Rod high:1000	3,2	Field generation, measurements magnetic & electric fields Passive, combined loop & rod
P6-319M		9 kHz – 30 MHz	85,5 to 40,0 (loop)	110,3 to 40,2 (rod)	≤1,8	N	642 x 540 x 487 Loop diameter: 540 Rod high: 500	2,2	Field generation, measurements magnetic & electric fields Passive, combined loop & rod
P6-219		20 MHz – 600 MHz	-20 to 15,0	62 to 36,3	-	N	191 x 88 x 69 Loop diameter: 88	0,5	Measurements magnetic field Active
P6-120		9 kHz – 30 MHz	-	-11,0 to 7,2	-	N	1476 x 688 x 688 Rod high:1400	5,0	Measurements magnetic field Active
P6-220		9 kHz – 30 MHz	-	-30,3 to 5,8	-	N	459 x 246 x 200	1,2	Measurements magnetic field Active
P6-320		9 kHz – 30 MHz	-	-36,6 to 12,1 11,4 to -10,9 (with additional dipoles)	-	BNC	459 x 236 x 200	1,2	Measurements electric field Active, reconfigurable. To increase the sensitivity, it has the ability to attach additional dipoles.

BICONICAL & VIBRATORY ANTENNAS

Product name	Product appearance	Frequency range	Antenna factor, dB/m or Gain, dB	VSWR	Polarization	Max power input, W	Connector type	Dimensions, mm	Weight, kg	Basic function / Feature
P6-112		9 kHz – 2,5 GHz	AF: 12 to 40	-	linear	-	N	355 x 205 x 40	0,4	Measurements
AS7.62.1		20 MHz – 8,0 GHz	AF:17 to 50	2,5typ	vertical	-	N	H = 434, D = 156	1,8	Radiomonitoring Omnidirectional
AS7.62.2		20 MHz – 8,0 GHz	G: -6 to 20* 20 to 45**	-	vertical	-	N	H = 469, D = 156	1,9	Radiomonitoring Active, omnidirectional, built-in preamplifier
P6-121		30 MHz – 300 MHz	AF: 10 to 25	2,0typ	linear	-	SMA	1327 x 501 x 501	1,3	Measurements Folding construction
P6-121M1		30 MHz – 300 MHz	AF: 10 to 25	2,0typ	linear	-	SMA	1327 x 501 x 501	1,3	Measurements

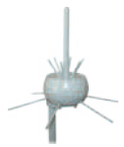
* The Gain parameter is specified for the range from 20MHz to 200MHz.
** The Gain parameter is specified for the range from 200MHz to 8,0GHz.

BICONICAL & VIBRATORY ANTENNAS

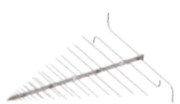
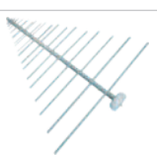
Product name	Product appearance	Frequency range	Antenna factor, dB/m or Gain, dB	VSWR	Polarization	Max power input, W	Connector type	Dimensions, mm	Weight, kg	Basic function / Feature
P6-121M5		30 MHz – 300 MHz	AF: ≤30	2,0typ	linear	50 (100)	N	1327 x 501 x 501	2,4	Field generation
P6-111*		30 MHz – 1000 MHz	AF: 10 to 20	2,0typ	linear	-	N	1327 x 501 x 501 418 x 350 x 501	1,35 0,5	Measurements
P6-172		300 MHz – 1000 MHz	AF: 18 to 32	2,0typ	linear	1	N	450 x 400 x 140	0,9	Measurements
P6-221		30 MHz – 1500 MHz	AF: 10 to 50	-	linear	-	N	400 x 207 x 126	1,0	Measurements Active
AS7.38.1		30 MHz – 2,8 GHz	AF: 20 to 42	-	vertical	-	SMA	H = 1010, D = 996	1,3	Radiomonitoring Omnidirectional
AS7.38.2		100 MHz – 2,8 GHz	AF: 20 to 42	-	vertical	-	SMA	H = 1010, D = 996	1,3	Radiomonitoring Omnidirectional

* The Reconfigurable biconical antenna has two sets of interchangeable dipoles (for frequency range 30-300MHz and for frequency range 300-1000MHz). Dimensions are specified depending on the dipoles used.

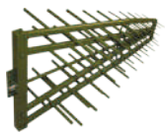
BICONICAL & VIBRATORY ANTENNAS

Product name	Product appearance	Frequency range	Antenna factor, dB/m or Gain, dB	VSWR	Polarization	Max power input, W	Connector type	Dimensions, mm	Weight, kg	Basic function / Feature
AS7.22		300 MHz – 2,0 GHz	AF: 20 to 42	2,5typ	vertical	-	SMA	H = 280, D = 321	1,0	Radiomonitoring / Omnidirectional
AS3.84		200 MHz – 1,0 GHz	G: ≥0	≤2,5	vertical	300	SMA	H = 585, D = 1120	6,8	Radiomonitoring, radiocommunication / Omnidirectional
AS3.86		500 MHz – 2,5 GHz	G: ≥2	≤2,5	vertical	300	SMA	H = 217, D = 400	2,7	Radiomonitoring, radiocommunication / Omnidirectional
AS3.104		800 MHz – 3,0 GHz	G: -2,8 to 0	≤3	vertical	50	SMA	H = 119, D = 117	0,5	Radiomonitoring, radiocommunication / Omnidirectional, car antenna
AS3.200		3 MHz – 3,0 GHz	G: -15 to 18	-	linear	-	N	318 x 193 x 185	1,6	Radiomonitoring, radiocommunication / Omnidirectional, active car antenna
AS7.23M		1,0 GHz – 18,0 GHz	G: ≥-4	2,0typ	vertical	1	SMA	H = 112, D = 100	0,2	Radiomonitoring / Omnidirectional
AS7.24		18 GHz – 40 GHz	G: ≥-4	2,0typ	vertical	1	K	H = 60, D = 47	0,5	Radiomonitoring / Omnidirectional

LOG PERIODIC ANTENNAS

Product name	Product appearance	Frequency range	Antenna factor, dB/m or Gain, dB	VSWR, typ	Polarization	Max power input, W	Connector type	Dimensions, mm	Weight, kg	Basic function / Feature
P6-151		30 MHz – 6 GHz	AF: 15 to 45	2	linear	0,5	SMA or N	746 x 546 x 88	1,9	Measurements
P6-251		100 MHz – 6 GHz	AF: 20 to 40	2	linear	0,5	SMA or N	456 x 303 x 88	0,9	Measurements
P6-322		80 MHz – 3 GHz	G: ≥6	2	linear	500	N or 7/16	2140 x 1980 x 88	7,5	Field generation, measurements Folding desigh
P6-322M		80 MHz – 3 GHz	G: ≥6	2	linear	1	N or 7/16	2151 x 1605 x 518	7,0	Field generation, measurements
AS4.88		200 MHz – 1 GHz	G: 3	2	linear	500	N	864 x 835 x 82	1,9	Field generation
P6-422		450 MHz – 900 MHz	G: ≥10	2,5	linear	500	N	3060 x 280 x 120	8,0	Measurements
P6-122		300 MHz – 3 GHz	G: ≥4,0	2	linear	250/500	SMA or N	726 x 659 x 88	1,8	Measurements
P6-122M2		300 MHz – 6 GHz	G: ≥3,5	2	linear	250/500	SMA or N	762 x 659 x 88	1,9	Measurements

LOG PERIODIC ANTENNAS

Product name	Product appearance	Frequency range, GHz	Gain, dB	VSWR	Polarization	Max power input, W	Connector type	Dimensions, mm	Weight, kg	Basic function / Feature
AS4.96		600 MHz – 1 GHz	≥10	≤2	linear	500	N	586 x 328 x 258	2,7	Field generation
AS4.83		900 MHz – 1,3 GHz	≥6	≤2	linear	500	N	180 x 444 x 82	1,2	Field generation
AS4.30		1 GHz – 8,2 GHz	≥4	2,5typ	linear	25	SMA	306 x 198 x 88	1,2	Measurements Feeder of reflector antennas
AS4.31		1 GHz – 18 GHz	≥4	2,5typ	linear	40	SMA	306 x 198 x 88	1,2	Measurements Feeder of reflector antennas
P6-222M		1 GHz – 18 GHz	3,5 to 7,0* or 31 to 38**	2,5typ	linear	-	SMA	513 x 242 x 91	1,6	Signal direction finding, measurements Has a built-in switching preamplifier and ac battery for 5 hours of operation

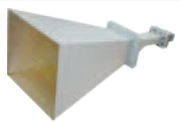
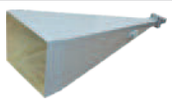
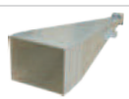
* Without preamplifier.
** With preamplifier.

LOG PERIODIC ANTENNAS

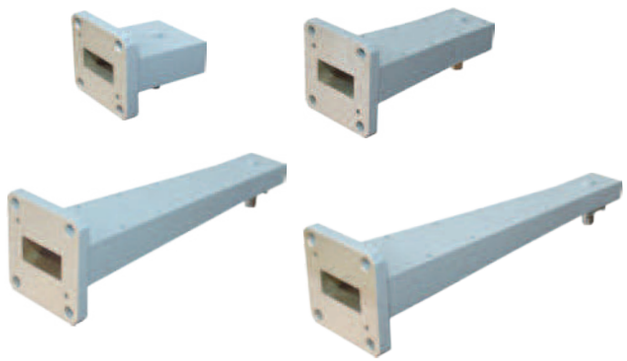
REFLECTOR FEEDS BASED ON LOGOPERIODIC ANTENNAS

Product name	Product appearance	Frequency range	Gain, dB	VSWR	Isolation, dB	Beam width (by -10dB level)		Connector type	Dimensions, mm	Weight, kg	Basic function / Feature
						Vertical polarization	Horizontal polarization				
AS4.32.1		1,0 GHz – 18,0 GHz	≥7,5	2,5typ	≥20	90°±7	113°±10	SMA	260 x 250 x 200	1,6	Radiomonitoring
AS4.32.2		1,0 GHz – 18,0 GHz	≥7,0	2,5typ	≥20	78°±12	92°±12	SMA	260 x 250 x 200	1,6	Radiomonitoring
AS4.33		8,0 GHz – 18,0 GHz	≥9,0	≤2,5	≥30	84°±8	102°±8	SMA	D = 80 H = 66	0,15	Radiomonitoring
AS4.213		2,0 GHz – 18,0 GHz	≥4,0	≤2,5	≥15	105°±15	135°±15	2 x SMA	D = 130 H = 200	0,25	Radiomonitoring / Biorthogonal
AS4.214		1,0 GHz – 18,0 GHz	≥4,0	≤2,5	≥15	105°±15	135°±15	2 x SMA	D = 170 H = 270	0,45	Radiomonitoring / Biorthogonal

HORN ANTENNAS STANDART GAIN HORNS

Product name	Product appearance	Frequency range, GHz	Gain, dB	VSWR	Polarization	Max power input, W	Connector type	Dimensions, mm	Weight, kg	Basic function / Feature
P6-139/1		3,95 – 5,85	≥ 19	≤ 1,5	linear	150/500	WR187 or SMA or N	598 x 306 x 232	3,2	Measurements / High precision
P6-139/2		5,85 - 8,2	≥ 21	≤ 1,5	linear	150/500	WR137 or SMA or N	564 x 246 x 186	2,6	Measurements / High precision
P6-139/3		8,2 - 12,4	≥ 22	≤ 1,5	linear	100/300	WR90 or SMA or N	502 x 206 x 156	1,6	Measurements / High precision
P6-139/4		12,4 - 18,0	≥ 23	≤ 1,5	linear	50	WR62 or SMA	408 x 152 x 115	1,5	Measurements / High precision
P6-139/5		18,0 - 26,5	≥ 23	≤ 1,5	linear	10	WR42 or K	299 x 102 x 77	0,8	Measurements / High precision
P6-139/6		26,5 - 40,0	≥ 23	≤ 1,5	linear	10	WR28 or K	270 x 82 x 62	0,5	Measurements / High precision
P6-133		40,0 - 60,0	≥ 22	≤ 1,5	linear	10	WR19 or V	145 x 49 x 38	0,1	Measurements
P6-134		50,0 – 75,0	≥ 22	≤ 1,5	linear	10	WR15 or 1mm	101 x 39 x 32	0,05	Measurements
P6-135		75,0 – 110,0	≥ 19,8	≤ 1,5	linear	10	WR10 or 1mm	66 x 48 x 42	0,03	Measurements

P6-140-x MEASURING HORN RECONFIGURABLE ANTENNA



Set interchangeable waveguide-coaxial transition sections

P6-140-x is an antenna system consisting of the basic P6-140 pyramidal horn with a WR-90 waveguide output and set interchangeable waveguide-coaxial transition sections of standard frequency ranges.

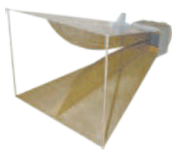
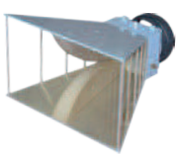
Depending on the chosen configuration, the antenna system provides measurements in the frequency range from 8,2 to 40,0 GHz.

VSWR, max.: 1,6.

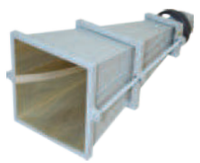
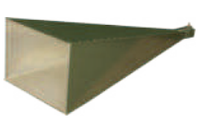
Specifications

Configuration:	P6-140-1	P6-140-2	P6-140-3	P6-140-4
Frequency range, GHz	8,2 – 12,4	12,4 – 18,0	18,0 – 26,5	26,5 – 40,0
Polarization	linear			
Gain, dB	⩾ 17,0	⩾ 18,0	⩾ 23,0	⩾ 25,0
Connector type	SMA (f)		K(f)	
Dimensions, mm	455 x 138 x 88	504 x 138 x 88	564 x 138 x 88	572 x 138 x 88
Weight, kg	0,97	1,0	1,04	1,03
Composition	P6-140 horn antenna with WR-90 waveguide output			
	WR90/SMA(f) waveguide-coaxial transition section	WR90/WR62/SMA(f) waveguide-coaxial transition section	WR90/WR42/K(f) waveguide-coaxial transition section	WR90/WR28/K(f) waveguide-coaxial transition section

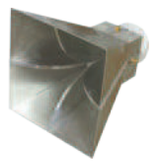
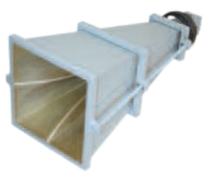
HORN ANTENNAS DOUBLE-RIDGED HORN ANTENNAS

Product name	Product appearance	Frequency range, GHz	Gain, dB	VSWR	Polarization	Max power input, W	Connector type	Dimensions, mm	Weight, kg	Basic function / Feature
P6-160		0,18 – 2,5	8 - 13	≤ 2	linear	500/2000	N or 7/16	980 x 720 x 550	12,5	Measurements, field generation
P6-421M		0,37 – 6,0	2 - 13	≤ 2	linear	500	N	485 x 358 x 285	3,7	Measurements, field generation
P6-421		0,45 – 6,0	4 - 17	≤ 1,5	linear	500	N	485 x 362 x 285	4,3	Measurements, field generation
P6-123		0,9 – 12,4	5 - 15	≤ 2	linear	50/300	SMA or N	244 x 240 x 143	1,7	Measurements
AS6.18		1,0 – 12,4	5 - 13	≤ 2	linear	50	SMA	195 x 193 x 155	0,45	Radiomonitoring, feed for reflector antennas and antenna arrays
P6-223		0,8 – 18,0	6 - 17	≤ 1,8	linear	10	SMA or N	344 x 323 x 322	2,5	Measurements
P6-223M		0,8 – 22,5	6 - 17	≤ 1,8	linear	10	SMA or N	344 x 323 x 322	2,5	Measurements

HORN ANTENNAS DOUBLE-RIDGED HORN ANTENNAS

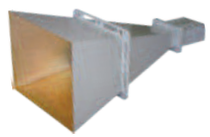
Product name	Product appearance	Frequency range, GHz	Gain, dB	VSWR	Polarization	Max power input, W	Connector type	Dimensions, mm	Weight, kg	Basic function / Feature
P6-124		2,0 – 18,0	11 - 18	≤ 2	linear	10	SMA	442 x 208 x 178	2,8	Measurements
AS6.212		3,0 – 40,0	4 - 15	≤ 2,5	linear	10	K	110 x 55 x 55	0,2	Radiomonitoring, measurements Small dimensions and weight
AS6.107		4,0 – 26,0	6 - 13	≤ 2,2	linear	10	K	68 x 61 x 48	0,15	Radiomonitoring, feed for reflector antennas and antenna arrays Small dimensions and weight
P6-127		8,0 – 18,0	16 - 21	≤ 2	linear	10	SMA	436 x 129 x 83	1,2	Measurements, field generation
P6-127M		8,0 – 18,0	19 - 25	≤ 2	linear	20	SMA	436 x 129 x 83	1,1	Measurements, field generation
P6-128		12,0 – 40,0	17 - 21	≤ 2	linear	10	K	380 x 126 x 126	2,2	Measurements, field generation

HORN ANTENNAS QUAD-RIDGED HORN ANTENNAS

Product name	Product appearance	Frequency range, GHz	Gain, dB	VSWR	Polarization	Isolation (Is)/ Ellipticity ratio (ER)	Connector type	Dimensions, mm	Weight, kg	Basic function / Feature
P6-224		1,0 – 10,0	8 - 10	⩽ 2	2 x linear*	Is: ⩾ 20dB	2 x SMA	245 x 207 x 207	1,8	Measurements
P6-125		2,0 – 18,0	11 - 18	⩽ 2	2 x linear*	Is: ⩾ 20dB	2 x SMA	442 x 208 x 178	2,8	Measurements
P6-126		2,0 – 18,0	12 - 17	⩽ 2	2 x circular**	Is: ⩾20dB ER: ⩽ 2dB	2 x SMA	464 x 208 x 178	2,6	Measurements
P6-129		18,0 – 40,0	18 - 20	⩽ 2	2 x linear*	Is: ⩾20dB	2 x K	380 x 126 x 126	2,1	Measurements
P6-130		18,0 – 40,0	15 - 22	⩽ 2	2 x circular**	Is: ⩾20dB ER: ⩽ 5dB	2 x K	401 x 138 x 126	2,3	Measurements
AS6.27		18,0 – 40,0	⩾12	2,5typ	2 x linear*	Is: ⩾ 20dB	2 x K	66 x 40 x 40	0,24	Feed for reflector antennas and antenna arrays Small dimensions and weight

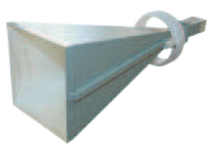
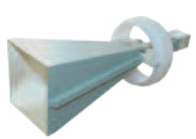
* Vertical and horizontal polarization.
** Left and right hand circular polarization.

HORN ANTENNAS OKTAVE HORN ANTENNAS

Product name	Product appearance	Frequency range, GHz	Gain, dB	VSWR	Polarization	Max power input, W	Connector type	Dimensions, mm	Weight, kg	Basic function / Feature
P6-225/1		1,0 – 2,0	≥ 14	≤ 1,5	linear	150	SMA	1054 x 592 x 442	13,6	Measurements
P6-225/2		2,0 – 4,0	≥ 14	≤ 1,5	linear	150	SMA	621 x 366 x 277	4,5	Measurements
P6-225/3		4,0 – 8,0	≥ 14	≤ 1,5	linear	150	SMA	400 x 186 x 141	1,4	Measurements

HORN ANTENNAS

SQUARE APERTURE HORN ANTENNAS WITH A ORTHOMODE TRANSDUCER

Product name	Product appearance	Frequency range, GHz	Gain, dB	VSWR	Polarization	Isolation (Is)/ Ellipticity ratio (ER)	Connector type	Dimensions, mm	Weight, kg	Basic function / Feature
P6-136		18,0 – 26,5	⩾ 8	2typ	2 x linear*	Is: ⩾ 20dB	2 x WR42	379 x 109 x 121	0,8	Measurements / Feed for reflector antennas
P6-136M		18,0 – 26,5	⩾ 8	2typ	2 x linear*	Is: ⩾20dB ER: ⩽ 5dB	2 x WR42	365 x 109 x 121	0,65	Measurements / Feed for reflector antennas
P6-137		26,5 – 40,0	⩾ 8	2typ	2 x circular**	Is: ⩾20dB	2 x WR28	264 x 88 x 89	0,5	Measurements / Feed for reflector antennas
P6-137M		26,5 – 40,0	⩾ 8	2typ	2 x linear*	Is: ⩾20dB ER: ⩽ 5dB	2 x WR28	306 x 88 x 88	0,5	Measurements / Feed for reflector antennas
P6-138		40,0 – 60,0	⩾ 8	2typ	2 x circular**	Is: ⩾ 20dB	2 x WR19	155 x 88 x 88	0,45	Measurements / Feed for reflector antennas
P6-138M		40,0 – 60,0	⩾ 8	2typ	2 x linear*	Is: ⩾20dB ER: ⩽ 5dB	2 x WR19	154 x 88 x 88	0,3	Measurements / Feed for reflector antennas

HORN ANTENNAS CONICAL QUAD-RIDGED HORN ANTENNAS

Product name	Product appearance	Frequency range, GHz	Gain, dB	VSWR	Polarization	Isolation (Is)/ Ellipticity ratio (ER)	Connector type	Dimensions, mm	Weight, kg	Basic function / Feature
AS6.201.01		1,0 – 3,0	≥ 8	≤ 1,8	2 x linear*	Is: ≥18dB	2 x SMA	266 x 265 x 265	3,0	Feed for reflector antennas Has a stabilized phase center, beamwidth (by -10dB level) = 100-120°
AS6.201.02		1,0 – 3,0	≥ 8	≤ 1,8	2 x circular**	Is: ≥18dB ER: ≤ 5dB	2 x SMA	276 x 265 x 265	3,1	Feed for reflector antennas Has a stabilized phase center, beamwidth (by -10dB level) = 100-120°
AS6.202.01		3,0 – 9,0	≥ 8	≤ 1,8	2 x linear*	Is: ≥20dB	2 x SMA	89 x 89 x 89	0,5	Feed for reflector antennas Has a stabilized phase center, beamwidth (by -10dB level) = 100-120°
AS6.202.02		3,0 – 9,0	≥ 8	≤ 1,8	2 x circular**	Is: ≥18dB ER: ≤ 1,5dB	2 x SMA	108 x 89 x 89	0,6	Feed for reflector antennas Has a stabilized phase center, beamwidth (by -10dB level) = 100-120°

* Vertical and horizontal polarization.
** Left and right hand circular polarization.

HORN-REFLECTOR ANTENNAS

Product name	Product appearance	Frequency range, GHz	Gain, dB	VSWR	Polarization	Connector type	Dimensions, mm	Weight, kg	Basic function / Feature
AS6.47		18,0 – 26,0	3typ	2typ	linear	WR42	D = 80, H = 170	0,5	Radiomonitoring, signal finding / Omnidirectional
AS6.48		26,0 – 40,0	3typ	2typ	linear	WR28	D = 66, H = 132	0,3	Radiomonitoring, signal finding / Omnidirectional
AS6.49		40,0 – 60,0	3typ	2typ	linear	WR19	D = 66, H =118	0,26	Radiomonitoring, signal finding / Omnidirectional
AS6.50		60,0 – 90,0	3typ	2typ	linear	WR12	D = 66, H =118	0,25	Radiomonitoring, signal finding / Omnidirectional
AS6.51		90,0 – 110,0	3typ	2typ	linear	WR10	D = 66, H =118	0,25	Radiomonitoring, signal finding / Omnidirectional

NARROW BEAM SCALAR HORN ANTENNAS

FOR USING AS FEDER REFLECTOR ANTENNAS	
Beam width (by -10 dB level)	10° - 60° *
VSWR	≤1,3
Isolation, dB	≥30
Typical side lobes level, dB	≤-25
Permissible difference beam width in E and H planes from the basic lobe, dB	±1,5

*The required parameter value is defined by the user.

Product name	Frequency range, GHz	Waveguide diameter (in/mm)	Flange type
AS6.35.001	8,2 - 9,97	1,094/27,79	UBR100 (UG-39/U)
AS6.35.002	8,5 - 11,6	0,938/23,83	
AS6.35.003	9,97 - 12,4	0,797/20,24	
AS6.35.004	12,4 - 15,9	0,764/19,4	UG-419/U
AS6.35.005	13,4 - 18,0	0,688/17,48	
AS6.35.006	15,9 -18,0	0,500/12,7	
AS6.35.007	17,0 - 22,0	0,500/12,7	UG-595/U или UG-425/U
AS6.35.008	18,0 - 20,5	0,455/11,56	
AS6.35.009	20,0 - 24,5	0,396/10,06	
AS6.35.010	21,0 - 27,0	0,396/10,06	
AS6.35.011	24,0 - 26,5	0,328/8,33	
AS6.35.012	25,0 - 33,0	0,328/8,33	
AS6.35.013	25,0 - 33,0	0,328/8,33	UG-599/U или UG-381/U
AS6.35.014	26,5 - 33,0	0,315/8,00	
AS6.35.015	33,0 - 38,5	0,250/6,35	
AS6.35.016	33,0 - 44,0	0,250/6,35	
AS6.35.017	38,5 - 40,0	0,219/5,56	
AS6.35.018	33,0 - 38,5	0,250/6,35	UG-383/U
AS6.35.019	33,0 - 44,0	0,250/6,35	
AS6.35.020	38,0 - 50,0	0,219/5,56	
AS6.35.021	38,5 - 43,0	0,219/5,56	
AS6.35.022	43,0 - 50,0	0,188/4,76	

Product name	Frequency range, GHz	Waveguide diameter (in/mm)	Flange type
AS6.35.023	43,0 - 58,0	0,188/4,78	UG-383/U mod
AS6.35.024	38,0 - 50,0	0,219/5,60	
AS6.35.025	40,0 - 43,0	0,210/5,33	
AS6.35.026	43,0 - 50,0	0,188/4,78	
AS6.35.027	43,0 - 58,0	0,188/4,78	
AS6.35.028	50,0 - 60,0	0,165/4,19	UG-385/U
AS6.35.029	58,0 - 77,0	0,141/3,60	
AS6.35.030	43,0 - 58,0	0,188/4,78	UG-383/U mod
AS6.35.031	50,0 - 58,0	0,165/4,19	UG-385/U
AS6.35.032	58,0 - 68,0	0,141/3,58	
AS6.35.033	58,0 - 77,0	0,141/3,58	
AS6.35.034	68,0 - 75,0	0,125/3,18	
AS6.35.035	58,0 - 77,0	0,141/3,58	UG-387/U
AS6.35.036	60,0 - 66,0	0,136/3,45	
AS6.35.037	66,0 - 82,0	0,125/3,18	
AS6.35.038	66,0 - 88,0	0,125/3,18	
AS6.35.039	75,0 - 110,0	0,109/2,80	
AS6.35.040	82,0 - 90,0	0,094/2,39	UG-387/U mod
AS6.35.041	75,0 - 88,0	0,112/2,84	
AS6.35.042	75,0 - 110,0	0,109/2,80	
AS6.35.043	88,0 - 90,0	0,094/2,39	
AS6.35.044	88,0 - 110,0	0,094/2,39	

WIDE BEAM SCALAR HORN ANTENNAS

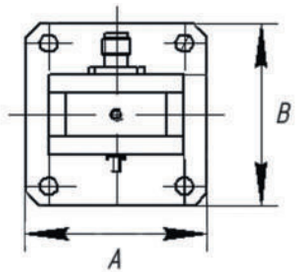
FOR USING AS FEDER REFLECTOR ANTENNAS	
Beam width (by -10 dB level)	40° - 100° *
VSWR	≤1,3
Isolation, dB	≥30
Typical side lobes level, dB	≤-25
Permissible difference beam width in E and H planes from the basic lobe, dB	±1,5

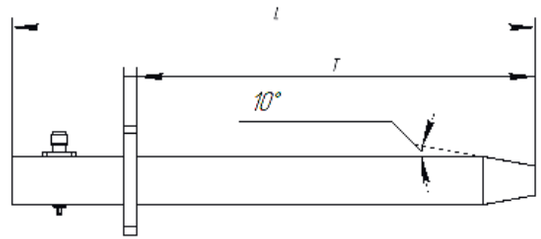
*The required parameter value is defined by the user.

Product name	Frequency range, GHz	Waveguide diameter (in/mm)	Flange type
AS6.36.001	8,2 - 9,97	1,094/27,79	UBR100 (UG-39/U)
AS6.36.002	8,5 - 11,6	0,938/23,83	
AS6.36.003	9,97 - 12,4	0,797/20,24	
AS6.36.004	12,4 - 15,9	0,764/19,4	UG-419/U
AS6.36.005	13,4 - 18,0	0,688/17,48	
AS6.36.006	15,9 -18,0	0,500/12,7	
AS6.36.007	17,0 - 22,0	0,500/12,7	UG-595/U или UG-425/U
AS6.36.008	18,0 - 20,5	0,455/11,56	
AS6.36.009	20,0 - 24,5	0,396/10,06	
AS6.36.010	21,0 - 27,0	0,396/10,06	
AS6.36.011	24,0 - 26,5	0,328/8,33	
AS6.36.012	25,0 - 33,0	0,328/8,33	
AS6.36.013	25,0 - 33,0	0,328/8,33	UG-599/U или UG-381/U
AS6.36.014	26,5 - 33,0	0,315/8,00	
AS6.36.015	33,0 - 38,5	0,250/6,35	
AS6.36.016	33,0 - 44,0	0,250/6,35	
AS6.36.017	38,5 - 40,0	0,219/5,56	
AS6.36.018	33,0 - 38,5	0,250/6,35	UG-383/U
AS6.36.019	33,0 - 44,0	0,250/6,35	
AS6.36.020	38,0 - 50,0	0,219/5,56	
AS6.36.021	38,5 - 43,0	0,219/5,56	
AS6.36.022	43,0 - 50,0	0,188/4,76	

Product name	Frequency range, GHz	Waveguide diameter (in/mm)	Flange type
AS6.36.023	43,0 - 58,0	0,188/4,78	UG-383/U mod
AS6.36.024	38,0 - 50,0	0,219/5,60	
AS6.36.025	40,0 - 43,0	0,210/5,33	
AS6.36.026	43,0 - 50,0	0,188/4,78	
AS6.36.027	43,0 - 58,0	0,188/4,78	
AS6.36.028	50,0 - 60,0	0,165/4,19	UG-385/U
AS6.36.029	58,0 - 77,0	0,141/3,60	
AS6.36.030	43,0 - 58,0	0,188/4,78	UG-383/U mod
AS6.36.031	50,0 - 58,0	0,165/4,19	UG-385/U
AS6.36.032	58,0 - 68,0	0,141/3,58	
AS6.36.033	58,0 - 77,0	0,141/3,58	
AS6.36.034	68,0 - 75,0	0,125/3,18	
AS6.36.035	58,0 - 77,0	0,141/3,58	UG-387/U
AS6.36.036	60,0 - 66,0	0,136/3,45	
AS6.36.037	66,0 - 82,0	0,125/3,18	
AS6.36.038	66,0 - 88,0	0,125/3,18	
AS6.36.039	75,0 - 110,0	0,109/2,80	
AS6.36.040	82,0 - 90,0	0,094/2,39	UG-387/U mod
AS6.36.041	75,0 - 88,0	0,112/2,84	
AS6.36.042	75,0 - 110,0	0,109/2,80	
AS6.36.043	88,0 - 90,0	0,094/2,39	
AS6.36.044	88,0 - 110,0	0,094/2,39	

OPEN-ENDED WAVEGUIDE PROBES





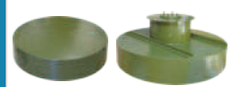
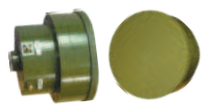
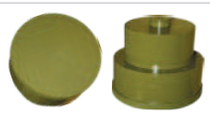
VSWR: ≤1,4

Product name	Waveguide standard	Frequency range, GHz	Connector type	Dimensions, mm				Weight, kg
				A	B	L	l	
P6-150/2300	WR2300	0,32 - 0,49	N	676,3	384	1345	812,8	29
P6-150/975	WR975	0,75 - 1,12	N/SMA	337	213	1100	940	17
P6-150/770	WR770	0,96 - 1,45	N/SMA	285	187,4	1116	813	15,7
P6-150/510	WR510	1,45 - 2,2	N/SMA	185	120	780	635	4,4
P6-150/340	WR340	2,2 - 3,3	N/SMA	138,2	95,3	560	458	2,2
P6-150/284	WR284	2,6 - 3,95	N/SMA	D = 115		433	340	1,45
P6-150/229	WR229	3,3 - 4,9	N/SMA	98,4	69,9	390	305	1,0
P6-150/187	WR187	3,95 - 5,85	N/SMA	D = 115		293	218	0,8
P6-150/159	WR159	4,9 - 7,05	N/SMA	81	61,9	290	230	0,6
P6-150/137	WR137	5,85 - 8,20	N/SMA	D = 115		253	183	0,65
P6-150/112	WR112	7,05 - 10,0	N/SMA	D = 47,8		260	220	0,46
P6-150/90	WR90	8,2 - 12,4	N/SMA	D = 41,4		200	152,4	0,34
P6-150/62	WR62	12,4 - 18,0	SMA	D = 101,5		200	156	0,28
P6-150/42	WR42	18,0 - 26,5	K			190	152	0,42
P6-150/28	WR28	26,5 - 40,0	K			190	149	0,38

SPIRAL ANTENNAS

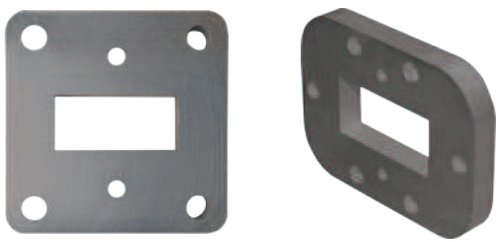
Product name	Product appearance	Frequency range	Gain, dB	VSWR	Polarization	Ellipticity ratio, dB	Max power input, W	Connector type	Dimensions, mm	Weight, kg	Basic function / Feature
AS8.114.1		800 MHz – 3,0 GHz	0 to 3	≤2,5	RHCP	-	200	N	D = 230 H = 125	1,2	Field generation
AS8.114.2					LHCP						
AS8.72.1		500 MHz – 18 (26) GHz	≥ -3	2typ	RHCP	2typ	10	N	D = 150 H = 118	0,55	Radiomonitoring, feed for antenna arrays
AS8.72.2					LHCP						
AS8.33.1		900 MHz – 18 (26) GHz	≥ -3	2typ	RHCP	2typ	10	SMA	D = 100 H = 35	0,2	Radiomonitoring, feed for antenna arrays
AS8.33.2					LHCP						
AS8.37.1		18 GHz – 40 GHz	≥ -1	2typ	RHCP	2typ	5	K	D = 25 H = 45	0,05	Radiomonitoring, feed for antenna arrays
AS8.37.2					LHCP						

SINUOUS ANTENNAS

Product name	Product appearance	Frequency range	Gain, dB	VSWR	Polarization	Isolation, dB	Max power input, W	Connector type	Dimensions, mm	Weight, kg	Basic function / Feature
AS8.115		100 MHz – 1,0 GHz	-5 to 3	≤2	vertical & horizontal	≥15	10	2 x N	D = 718, H = 350	12	Radiomonitoring, feed for reflector antennas and antenna arrays
AS8.115KM		100 MHz – 1,0 GHz	-5 to 3	≤2	vertical, horizontal, RHCP, LHCP	≥15	10	2 x N	D = 718, H = 350	15,2	Radiomonitoring, feed for reflector antennas and antenna arrays It has a polarization type switching mode, type of control port: RS-485
AS8.206		300 MHz – 1,5 GHz	-4 to 3	≤2	vertical & horizontal	≥15	10	2 x SMA	D = 400, H = 150	3,0	Radiomonitoring, feed for reflector antennas and antenna arrays
AS8.206KM		300 MHz – 1,5 GHz	-4 to 3	≤2	vertical, horizontal, RHCP, LHCP	≥15	10	2 x SMA	D = 400, H = 150	4,0	Radiomonitoring, feed for reflector antennas and antenna arrays It has a polarization type switching mode, type of control port: RS-485
AS8.210		400 MHz – 1,5 GHz	-1 to 4	≤2	linear	-	10	2 x SMA	D = 188, H = 119	1,9	Radiomonitoring The antenna design is optimized for a ring antenna array
AS8.116		700 MHz – 4,0 GHz	-1 to 2	≤2,5	vertical & horizontal	≥15	10	2 x SMA	D = 188, H = 119	1,3	Radiomonitoring, feed for reflector antennas and antenna arrays
AS8.116KM		700 MHz – 4,0 GHz	-1 to 2	≤2,5	vertical, horizontal, RHCP, LHCP	≥15	10	2 x SMA	D = 188, H = 119	2,1	Radiomonitoring, feed for reflector antennas and antenna arrays It has a polarization type switching mode, type of control port: RS-485
AS8.117		1,0 GHz – 18,0 GHz	-3 to 3	≤3	vertical & horizontal	≥15	10	2 x SMA	D = 158, H = 106	0,32	Radiomonitoring, feed for reflector antennas and antenna arrays
AS8.117KM		1,0 GHz – 18,0 GHz	-3 to 3	≤3	vertical, horizontal, RHCP, LHCP	≥15	10	2 x SMA	D = 158, H = 106	0,9	Radiomonitoring, feed for reflector antennas and antenna arrays It has a polarization type switching mode, type of control port: RS-485

CMB01 & CMB02 series OFFSET SHORTS -1/4, 1/8 & 3/8 WAVELENGTH

SMB01 - standard series, manufacturing accuracy 20 µm and SMB02 - high precision series, manufacturing accuracy 5 µm.
Available for waveguide sizes WR650 - WR8.

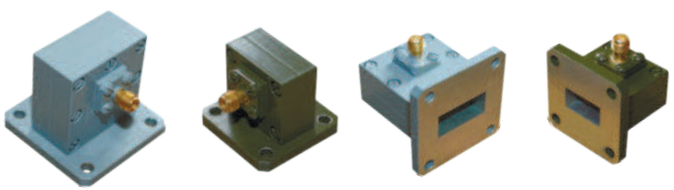


Ordering information

		Series name	WR size	Wavelength	Flange type	Material*	Coating**
Example 1	p/n:	CMB01	229	3/8	UDR40	I	S
		CMB01-229-3/8-(UDR40)-I-S					
Example 2	p/n:	CMB02	15	1/4	UG-385/U	B	G
		CMB02-15-1/4-(UG-385/U)-B-G					

CA01 series WG TO COAXIAL ADAPTER (RIGHT ANGLE TYPE)

Available for waveguide sizes WR650 – WR28.

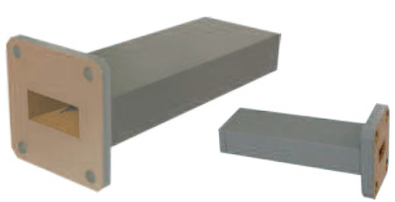


Ordering information

		Series name	WR size	Wavelength	Flange type	Material*	Coating**
Example	p/n:	CA01	62	UER140	SMA(f)	Al	OX
		CA01-62(UER10)-SMA(f)-Al-OX					

PTM01 series LOW POWER PRECISION LOADS

Available for waveguide sizes WR284 – WR28.
VSWR for models from WR284 to WR75: 1,015 typical.
VSWR for models from WR75 to WR28: 1,03 typical.



Ordering information

		Series name	WR size	Flange type	Material*	Coating**
Example	p/n:	PTM01	28	UG-599/U	Cu	G
		PTM01-28(UG-599/U)-Cu-G				

* Material: Aluminum (Al), Invar(I), Cuprum (Cu), Brass (B), Beryllium bronze (BrB2).
** Coating: Electrolytic oxidation(OX), Silver (S), Gold (G).

PB01 series SEGMENTS OF RECTANGULAR WAVEGUIDE (WR-TYPE)

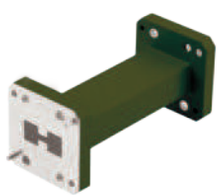
Available for waveguide sizes WR430 - WR8.
Can be used for transitions between different types of flanges.
Maximum segment length: from WR430 to WR229 – 1000mm, from WR187 to WR112 -600, from WR90 to WR19 -200mm, fromWR15-WR8 -100mm.

Ordering information

		Series name	WR size	Flange type port1	Flange type port2	Segment length, mm	Material*	Coating**
Example	p/n:	PB01	90	UDR100	UG-1478/U	200	I	S
		PB01-90(UDR100)/(UG-1478/U)						

PBH series SEGMENTS OF DOUBLE-RIDGED WAVEGUIDE (WRD-TYPE)

Available for all waveguide sizes WRD standard.
Maximum segment length: 400 mm.



Ordering information

		Series name	WRD size	Segment length, mm	Material*	Coating**
Example	p/n:	PBH	350	250	Al	OX
		PBH-350-250-Al-OX				

TB02 series TRANSITION SECTIONS OF RECTANGULAR TO RECTANGULAR WAVEGUIDE (WR-TYPE)

Available for waveguide sizes WR430-WR8.
Maximum sections length: from WR430 to WR229–1000 mm, from WR187 to WR112-600, from WR90 to WR19-200 mm, from WR15-WR8-100 mm.

Ordering information

		Series name	Port 1		Port 2		Sections length, mm	Material*	Coating**
			WR size	Flange type	WR size	Flange type			
Example	p/n:	TB02	90	UDR100	42	UG-595/U	200	Al	OX
		TB02-90(UBR100)-42(UG-595/U)-200-Al-OX							

* Material: Aluminum (Al), Invar(I), Cuprum (Cu), Brass (B), Beryllium bronze (BrB2).
** Coating: Electrolytic oxidation(OX), Silver (S), Gold (G).

TBC01 series TRANSITION SECTIONS OF CIRCULAR(WC-TYPE) TO RECTANGULAR WAVEGUIDE (WR-TYPE)

Available for frequency range from 8,2 to 110GHz.
Maximum sections length: from WR90 to WR19 – 200 mm, from WR15 to WR10-100 mm.

Product range:

Product base number	Frequency range	Circular waveguide diameter, mm	Rectangular waveguide size
TBC01.001	8,2 – 9,97	1,094/27,79	WR-90
TBC01.002	8,5 – 11,6	0,938/23,83	
TBC01.003	9,97 – 12,4	0,797/20,24	
TBC01.004	12,4 – 15,9	0,764/19,4	WR-62
TBC01.005	13,4 – 18,0	0,688/17,48	
TBC01.006	15,9 – 18,0	0,500/12,7	
TBC01.007	18,0 – 20,5	0,455/11,56	WR-42
TBC01.008	20,0 – 24,5	0,396/10,06	
TBC01.009	24,0 – 26,5	0,328/8,33	
TBC01.010	26,5 – 33,0	0,315/8,00	WR-28
TBC01.012	33,0 – 38,5	0,250/6,35	
TBC01.013	38,5 – 40,0	0,219/5,56	
TBC01.014	33,0 – 38,5	0,250/6,35	WR-22
TBC01.015	38,5 – 43,0	0,219/5,56	
TBC01.016	43,0 – 50,0	0,188/4,78	

Product base number	Frequency range	Circular waveguide diameter, mm	Rectangular waveguide size
TBC01.017	40,0 – 43,0	0,210/5,33	WR-19
TBC01.018	43,0 – 50,0	0,188/4,78	
TBC01.019	50,0 – 60,0	0,165/4,19	
TBC01.020	50,0 – 58,0	0,165/4,19	WR-15
TBC01.021	58,0 – 68,0	0,141/3,58	
TBC01.022	68,0 – 75,0	0,125/3,18	
TBC01.023	60,0 – 66,0	0,136/3,45	WR-12
TBC01.024	66,0 – 82,0	0,125/3,18	
TBC01.025	82,0 – 90,0	0,094/2,39	
TBC01.026	75,0 – 88,0	0,112/2,84	WR-10
TBC01.027	88,0 – 110,0	0,094/2,39	

Ordering information

		Product base number	Port 1 circular waveguide	Port 2 rectangular waveguide		Sections length, mm	Material*	Coating**
			Flange type	WR size	Flange type			
Example	p/n:	TBC01.024	UG-387/U	12	UG-387/U	100	B	G
		TBC01.024(UG-387/U)-12(UG-387/U)-100-B-G						

TBC02 series TRANSITION SECTIONS OF CIRCULAR(CUSTOMIZED) TO RECTANGULAR WAVEGUIDE (WR-TYPE)

Available for frequency range from 8,2 to 110GHz.
Maximum sections length: from WR90 to WR19 – 200mm, from WR15 to WR10 -100 mm.

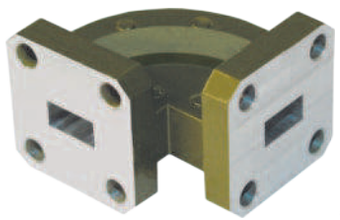
Ordering information

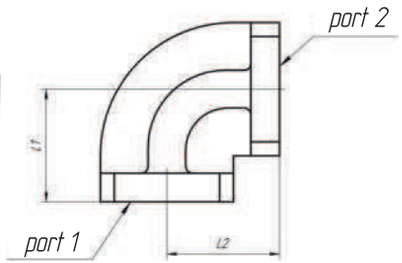
		Series name	Port 1 circular waveguide		Port 2 rectangular waveguide		Sections length, mm	Material*	Coating**
			Size (diameter), mm	Flange type	WR size	Flange type			
Example	p/n:	TBC02	3.45	UG-387/U	12	UG-387/U	100	B	G
		TBC02-3.45(UG-387/U)-12(UG-387/U)-100-B-G							

* Material: Aluminum (Al), Invar(I), Cuprum (Cu), Brass (B), Beryllium bronze (BrB2).
** Coating: Electrolytic oxidation(OX), Silver (S), Gold (G).

PBC/H series BEND-RADIUS SECTIONS (90° H-plane)

Available for waveguide sizes WR430 – WR19.
Maximum L1,L2 size: from WR430 to WR229 – 1000mm, from WR187 to WR62 -400, from WR51 to WR19 -200mm.



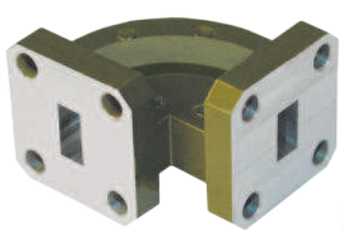


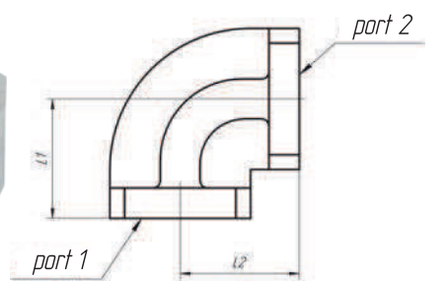
Ordering information

		Series name	WR size	Flange type port1	Flange type port2	L1 size	L1 size	Material*	Coating**
Example	p/n:	PBC/H	51	UBR-180	UDR-180	30	110	Al	OX
		PBC/H-51-(UBR-180)/(UDR-180)-30-110-Al-OX							

PBC/E series BEND-RADIUS SECTIONS (90° E-plane)

Available for waveguide sizes WR430 – WR19.
Maximum L1,L2 size: from WR430 to WR229 – 1000mm, from WR187 to WR62 -400, from WR51 to WR19 -200mm.





Ordering information

		Series name	WR size	Flange type port1	Flange type port2	L1 size	L1 size	Material*	Coating**
Example	p/n:	PBC/E	51	UBR-180	UDR-180	30	110	Al	OX
		PBC/E-51-(UBR-180)/(UDR-180)-30-110-Al-OX							

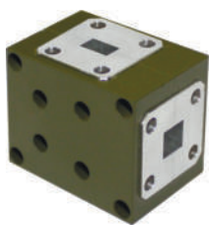
OMT01 series ORTHOMODE TRANSDUCER (Linear polarization)

Available for frequency range from 8,2 to 90GHz.
The device is completed with the needed transitional waveguide section of the of the combined port type to the standard waveguide port of the WC or WR type.
"Isolation" parameter given for bandwidth = 20%.

Product range:

Product base number	Frequency range	VSWR	Isolation	Loss	Combined port size (square type),mm	Port V/H waveguide size
OMT01-090	8,2 - 12,5	35	≤1,4	0,5/0,5	22,86	WR-90
OMT01-062	12,4 - 18,0				15,80	WR-62
OMT01-051	14,5 - 22,0				12,95	WR-51
OMT01-042	18,0 - 26,5				10,688	WR-42
OMT01-034	21,7 - 33,0				8,636	WR-34

Product base number	Frequency range	VSWR	Isolation	Loss	Combined port size (square type),mm	Port V/H waveguide size
OMT01-028	26,5 - 40,0	35	≤1,4	0,5/0,5	6,86	WR-28
OMT01-022	33,0 - 50,0				5,59	WR-22
OMT01-019	40,0 - 60,0	30	≤1,5	0,5/0,8	4,78	WR-19
OMT01-015	50,0 - 75,8				3,76	WR-15
OMT01-012	60,0 - 90,0				3,1	WR-12



Ordering information

		Product base number	WR size	Flange type	Material*	Coating**
Example	p/n:	OMT01	90	UDR-100	Al	OX
		OMT01-90(UDR-100)-Al-OX				

OMT02 series ORTHOMODE TRANSDUCER (Circular polarization)

Available for frequency range from 8,2 to 90GHz
The device is completed with the needed transitional waveguide section of the of the combined port type to the standard waveguide port of the WC or WR type.
"Isolation" parameter given for bandwidth = 20%

Product range:

Product base number	Frequency range	VSWR	Isolation	Loss	Combined port size (square type),mm	Port L/R waveguide size
OMT02-090	8,2 - 12,5	35	≤1,4	0,5/0,5	22,86	WR-90
OMT02-062	12,4 - 18,0				15,80	WR-62
OMT02-051	14,5 - 22,0				12,95	WR-51
OMT02-042	18,0 - 26,5				10,688	WR-42
OMT02-034	21,7 - 33,0				8,636	WR-34

Product base number	Frequency range	VSWR	Isolation	Loss	Combined port size (square type),mm	Port L/R waveguide size
OMT02-028	26,5 - 40,0	35	≤1,4	0,5/0,5	6,86	WR-28
OMT02-022	33,0 - 50,0				5,59	WR-22
OMT02-019	40,0 - 60,0	30	≤1,5	0,5/0,8	4,78	WR-19
OMT02-015	50,0 - 75,8				3,76	WR-15
OMT02-012	60,0 - 90,0				3,1	WR-12

		Product base number	WR size	Flange type	Material*	Coating**
Example	p/n:	OMT02	90	UDR-100	Al	OX
		OMT02-90(UDR-100)-Al-OX				

* Material: Aluminum (Al), Invar(I), Cuprum (Cu), Brass (B), Beryllium bronze (BrB2).
** Coating: Electrolytic oxidation(OX), Silver (S), Gold (G).

BH01 series LOW PASS FILTER

Available for frequency range from 11 to 90 GHz.
VSWR ≤1.5.

Product range:

Product base number	Bandwidth frequency at level -3dB	Stopband, GHz (rejection ≥40dB)	Insertion loss, dB	WR size
BH01-11	8,9 – 11,1	11,4 -17,0	≤ 1,0	90
BH01-12	10,0 - 12,2	12,4 - 18,0	≤ 1,0	90
BH01-11,3	8,7 - 11,4	11,7 - 17,0	≤ 1,0	90
BH01-23	14,5 -23,0	24,0 – 40,0	≤ 1,0	42
BH01-31	17,0 -31,0	33,0 -50,0	≤ 1,0	28
BH01-40	33,0 -40,0	44,0 -60,0	≤ 1,0	22

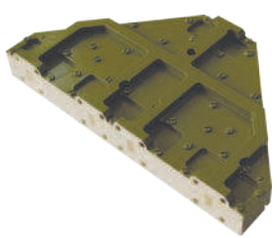
Product base number	Bandwidth frequency at level -3dB	Stopband, GHz (rejection ≥40dB)	Insertion loss, dB	WR size
BH01-40,5	25,0 - 40,0	43,0 - 60,0	≤ 1,0	28
BH01-50	39,0 – 50,0	53,0 -70,0	≤ 1,2	19
BH01-60	40,0 – 60,0	64,0 -80,0	≤ 1,2	19
BH01-75	50,0 -75,0	83,0 -110,0	≤ 1,5	15
BH01-88	75,0 – 88,0	95,0 -120,0	≤ 1,5	12

Ordering information

		Product base number	Flange type (in)	Flange type (out)	Material*	Coating**
Example	p/n:	BH01-31	UBR320	UBR320	Al	OX
		BH01-31-(UBR320)/(UBR320)-Al-OX				

* Material: Aluminum (Al), Invar(I), Cuprum (Cu), Brass (B), Beryllium bronze (BrB2).
** Coating: Electrolytic oxidation(OX), Silver (S), Gold (G).

HP2 & HP4 series WAVEGUIDES POWER DEVIDERS (2WAY & 4WAY)



Available from 26,0 to 110 GHz.
Operation temperature: from -45°C to +60°C.
VSWR: ≤1,5.

Product range:

2 WAY

Product base number	Frequency range, GHz	Insertion loss, dB	Isolation, dB	WR size	Flange type
HP2-260400	26,0 – 40,0	≥ 0,5	≥ 20	28	UG599/U
HP2-330500	33,0 – 50,0	≥ 0,7		22	UG383/U
HP2-400600	40,0 – 60,0	≥ 0,7		19	UG383/U mod
HP2-500750	50,0 - 75,0	≥ 0,9		15	UG385/U
HP2-600900	60,0 – 90,0	≥ 0,9		12	UG387/U
HP2-7501100	75,0 – 110,0	≥ 1		10	UG387/U mod

4 WAY

Product base number	Frequency range, GHz	Insertion loss, dB	Isolation, dB	WR size	Flange type
HP4-260400	26,0 – 40,0	≥ 0,5	≥ 20	28	UG599/U
HP4-330500	33,0 – 50,0	≥ 0,7		22	UG383/U
HP4-400600	40,0 – 60,0	≥ 0,7		19	UG383/U mod
HP4-500750	50,0 - 75,0	≥ 0,9		15	UG385/U
HP4-600900	60,0 – 90,0	≥ 0,9		12	UG387/U
HP4-7501100	75,0 – 110,0	≥ 1		10	UG387/U mod

MKP01 series PIN DIODE SWITCH (reflective type)

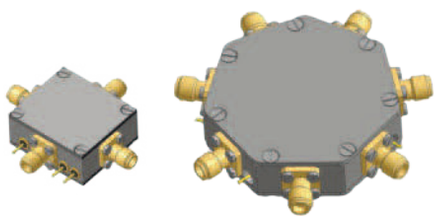
Available from 100 MHz to 26 GHz with switching types SPDT, SP3T, SP4T, SP5T, SP6T and SP8T.
VSWR: 1,2 to 2,5.
Control voltage: 5B.

Product range:

Product base number	Frequency range, GHz	Insertion loss, dB①	Isolation, dB	Switching speed, max, ns	Connector type
MKP01-001010	0,1 - 1,0	1,2 to 2,0	≥ 60	200	SMA(f)
MKP01-010020	1,0 - 2,0	1,2 to 2,0	≥ 60	50 or 15	SMA(f)
MKP01-020040	2,0 - 4,0	1,5 to 2,5	≥ 60	50 or 15	SMA(f)
MKP01-040080	4,0 - 8,0	1,8 to 2,8	≥ 60	50 or 15	SMA(f)

① The parameter changes depending on the number of switched ports

Product base number	Frequency range, GHz	Insertion loss, dB①	Isolation, dB	Switching speed, max, ns	Connector type
MKP01-080180	8,0 - 18,0	2,5 to 3,6	≥ 60	50 or 15	SMA(f)
MKP01-180260	18,0 – 26,0	3,2 to 4,0	≥ 50	50 or 15	K(f)
MKP01-010180	1,0 - 18,0	4,0 to 4,5	≥ 50	50 or 15	SMA(f)
MKP01-010260	1,0 -26,0	4,5 to 5,0	≥ 50	50 or 15	K(f)



		Product base number	Switching type	Switching speed
Example	p/n:	MKP01-180260	SP6T	50
		MKP01-180260-SP6T-50		

* Material: Aluminum (Al), Invar(I), Cuprum (Cu), Brass (B), Beryllium bronze (BrB2).
** Coating: Electrolytic oxidation(OX), Silver (S), Gold (G).

MH series WAVEGUIDE NOISE GENERATORS

Available for frequency range from 26 to 110GHz.
Operation temperature: from -45°C to +60°C.
Power connector: PC4 type.

Product range:

Product number	Frequency range, GHz	Noise output ENR, dB	VSWR	Voltage current, V	Supple currents, mA	WR size	Flange type
MH2640	26,0 - 40,0	15 - 16	≤ 1,6	+12	25	28	UG599/U
MH3350	33,0 - 50,0	15 - 16				22	UG383/U
MH4060	40,0 – 60,0	15 - 17				19	UG383/U mod
MH5075	50,0 – 75,0	14 - 17				15	UG385/U
MH6090	60,0 - 90,0	12 - 16				12	UG387/U
MH75110	75,0 - 110,0	12 - 16				10	UG387/U mod

AC series WIDEBAND LOW-NOISE AMPLIFIERS

Available for frequency range from 0,1 to 50GHz.
Operation temperature: from -45°C to +60°C.

Product range:

Product base number	Frequency range, GHz	Gain, dB	Pout, mW	Noise figure, max, dB	Supple currents, mA	Connector type
AC 001030-12/20-x-x	0,1 - 3,0	12	20	3	100	SMA(f)
AC 001030-25/20-x-x	0,1 - 3,0	25	20	3	200	SMA(f)
AC 005080-15/30-x-x	0,5 - 8,0	15	30	2	100	SMA(f)
AC 005080-35/30-x-x	0,5 - 8,0	35	30	2	200	SMA(f)
AC 010180-12/20-x-x	1,0 - 18,0	12	20	4	100	SMA(f)
AC 010180-25/20-x-x	1,0 - 18,0	25	20	4	200	SMA(f)
AC 080180-15/30-x-x	8,0 - 18,0	15	30	3	300	SMA(f)
AC 080180-30/30-x-x	8,0 - 18,0	30	30	3	200	SMA(f)
AC 180260-15/20-x-x	18,0 - 26,0	15	20	3	200	K(f)
AC 180260-30/20-x-x	18,0 - 26,0	30	20	3	200	K(f)
AC 180400-12/25-x-x	18,0 - 40,0	12	25	6	200	K(f)
AC 180400-25/25-x-x	18,0 - 40,0	25	25	6	400	K(f)
AC 260400-15/10-x-x	26,0 - 40,0	15	10	4	100	K(f)
AC 260400-30/10-x-x	26,0 - 40,0	30	10	4	200	K(f)
AC 180500-25/20-x-x	18,0 - 50,0	25	20	6	500	1,85(f)

Ordering information

		Product base number	Supply voltage*	Power connector**
Example	p/n:	AC001030-12/20	5	SC
		AC001030-12/20-5-SC		

* +5V(5) or +12V(12).
** Power connector option: sealed contact (SC) or connector -PC4(PC4).

AD series BROADBAND MEDIUM POWER AMPLIFIERS

Available for frequency range from 0,1 to 40GHz.
Operation temperature: from -45°C to +60°C.

Product range:

Product base number	Frequency range, GHz	Gain, dB	Pout, mW	Noise figure, max, dB	Supple currents, mA	Connector type
AD 001030-12/20-x-x	0,1 - 3,0	12	100	4	150	SMA(f)
AD 001030-25/20-x-x	0,1 - 3,0	25	100	3	250	SMA(f)
AD 010180-25/100-x-x	1,0 - 18,0	25	100	4	250	SMA(f)
AD 080180-15/100-x-x	8,0 - 18,0	15	100	7	200	SMA(f)
AD 080180-30/100-x-x	8,0 - 18,0	30	100	3	250	SMA(f)
AD 180260-28/80-x-x	18,0 - 26,0	28	80	4	250	K(f)
AD 260400-25/80-x-x	26,0 - 40,0	25	80	5	250	K(f)
AD 180400-25/80-x-x	18,0 - 40,0	25	80	6	250	K(f)
AD 010260-25/80-x-x	1,0 - 26,0	25	80	7	250	K(f)
AD 010400-25/80-x-x	1,0 - 40,0	25	80	7	250	K(f)

Ordering information

		Product base number	Supply voltage*	Power connector**
Example	p/n:	AD010030-15/20	12	SC
		AD001030-12/100-12-SC		

* only +12V(12).
** Power connector option: sealed contact (SC) or connector -PC4(PC4).

ACK series WIDEBAND LOW-NOISE AMPLIFIERS WITH INJECTION POWER (power over signal cable)

Available for frequency range from 0,1 to 18GHz.
Operation temperature: from -45°C to +60°C.

Product range:

Product base number	Frequency range, GHz	Gain, dB	Pout, mW	Noise figure, max, dB	Supple currents, mA	Connector type
ACK 001030-12/20-x-x	0,1 - 3,0	12	20	3	200	SMA(f)
ACK 001030-25/20-x-x	0,1 - 3,0	25	20	3	200	SMA(f)
ACK 005080-15/30-x-x	0,5 - 8,0	15	30	2	200	SMA(f)
ACK 005080-35/30-x-x	0,5 - 8,0	35	30	2	200	SMA(f)
ACK 080180-15/30-x-x	8,0 - 18,0	15	30	3	300	SMA(f)
ACK 080180-30/30-x-x	8,0 - 18,0	30	30	3	300	SMA(f)

		Product base number	Supply voltage*
Example	p/n:	ACK001030-20/20	5
		ACK001030-20/20-5	

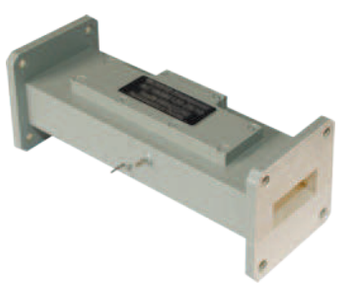
* +5V(5) or +12V(12).

AC1B series WAVEGUIDE LOW-NOISE AMPLIFIERS

Available for frequency range from 8,0 to 50GHz.
Operation temperature: from -45°C to +60°C.

Product range:

Product base number	Frequency range, GHz	Gain, dB	Pout, mW	Noise figure, max, dB	Supple currents, mA	WR size	Flange type
AC1B 080120-30/20-x-x	8,0 - 12,0	30	20	3	200	WR-90	UBR100
AC1B 120180-30/20-x-x	12,0 - 18,0	30	20	3	200	WR-62	UBR140
AC1B 180260-25/10-x-x	18,0 - 26,0	25	10	3	200	WR-42	UBR220
AC1B 260400-25/10-x-x	26,0 - 40,0	25	10	4	200	WR-28	UBR320
AC1B 400500-25/10-x-x	40,0 - 50,0	25	10	6	200	WR-19	UG-383/U-mod



Ordering information

		Product base number	Supply voltage*	Power connector**
Example	p/n:	AC1B080120-25/20	12	PC4
		AC1B080120-25/20-12-PC4		

* +5V(5) or +12V(12).
** Power connector option: sealed contact (SC) or connector -PC4(PC4).

AC2B series LOW POWER AMPLIFIERS (WAVEGUIDE TO COAXIAL)

Available for frequency range from 8,0 to 50GHz.
Operation temperature: from -45°C to +60°C.

Product range:

Product base number	Frequency range, GHz	Gain, dB	Pout, mW	Noise figure, max, dB	Supple currents, mA	Input port		Output port
						WR size	Flange type	Connector type
AC2B 080120-30/20-x-x	8,0 - 12,0	30	20	3	200	WR-90	UBR100	SMA(f)
AC2B 120180-30/20-x-x	12,0 - 18,0	30	20	3	200	WR-62	UBR140	SMA(f)
AC2B 180260-25/10-x-x	18,0 - 26,0	25	10	3	200	WR-42	UBR220	K(f)
AC2B 260400-25/10-x-x	26,0 - 40,0	25	10	4	200	WR-28	UBR320	K(f)
AC2B 400500-25/10-x-x	40,0 - 50,0	25	10	6	200	WR-19	UG-383/U-mod	1,85(f)

Ordering information

		Product base number	Supply voltage*	Power connector**
Example	p/n:	AC2B080120-30/20	5	PC4
		AC2B080120-30/20-5-PC4		

* +5V(5) or +12V(12).
** Power connector option: sealed contact (SC) or connector -PC4(PC4).

AC3B series LOW POWER AMPLIFIERS (COAXIAL TO WAVEGUIDE)

Available for frequency range from 8,0 to 50GHz.
Operation temperature: from -45°C to +60°C.

Product range:

Product base number	Frequency range, GHz	Gain, dB	Pout, mW	Noise figure, max, dB	Supple currents, mA	Input port	Output port	
						Flange type	WR size	Connector type
AC3B 080120-30/20-x-x	8,0 - 12,0	30	20	3	200	SMA(f)	WR-90	UBR100
AC3B 120180-30/20-x-x	12,0 - 18,0	30	20	3	200	SMA(f)	WR-62	UBR140
AC3B 180260-25/10-x-x	18,0 - 26,0	25	10	3	200	K(f)	WR-42	UBR220
AC3B 260400-25/10-x-x	26,0 - 40,0	25	10	3	200	K(f)	WR-28	UBR320
AC3B 400500-25/10-x-x	40,0 - 50,0	25	10	5	200	1,85(f)	WR-19	UG-383/U-mod

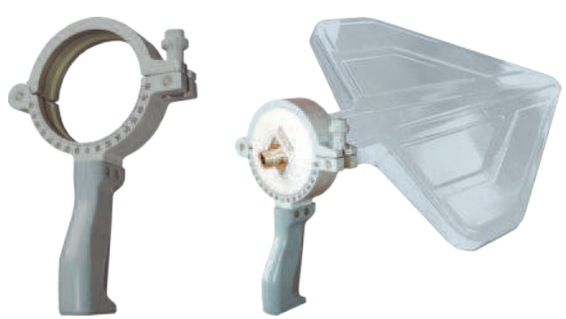
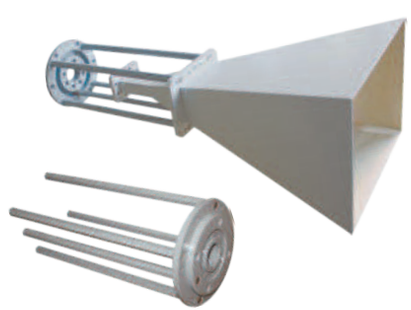
Ordering information

		Product base number	Supply voltage*	Power connector**
Example	p/n:	AC3B5400500-25/10	5	PC4
		AC3B400500-25/10-5-PC4		

* +5V(5) or +12V(12).
** Power connector option: sealed contact (SC) or connector -PC4(PC4).

OPTIONS

AK-08L	AK-09L	AK-16
Dielectric universal antenna mount (clamp type).	Dielectric laboratory positioner with azimuth and elevation scales.	Dielectric mount to a photo tripod for small size antennas.
Maximum payload weight: 10 kg.	Maximum payload weight: 6 kg.	Maximum payload weight: 0,5 kg.

AK-02M	AK-10	AK-17
Standard antenna mount to a photo tripod.	Standard hand type antenna mount.	Antenna mounting bracket.
		
Maximum payload weight: 6 kg; The device includes a polarization scale.	Maximum payload weight: 3 kg; The device includes a polarization scale.	Maximum payload weight: 15 kg.

OPTIONS

AK-12 & AK-13

Mounts for big size antennas.

Maximum payload weight:
AK-12 - 15 kg;
AK-13 - 6 kg.

KOD-01

Coordinate rotary device with manual control.

Maximum payload weight: 40 kg;
Has azimuth and elevation scales;
Rotation limits in azimuth 270°, in elevation -10° to +45°;
Scale reading accuracy:±0,1°.

RMT-01

Reinforced metal tripod.

Maximum payload weight: 100 kg;
Tripod working height: max. - 1400mm, min.- 900mm;
Recommended for use with type AK-12, AK-13 and KOD-01 antenna mounts.

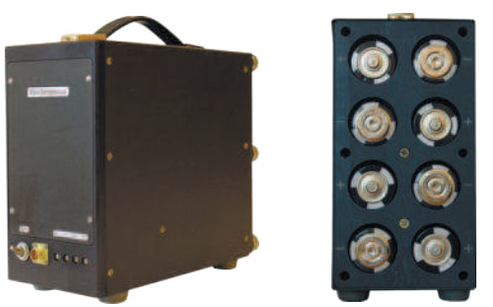
DAT-01,02,03

Dielectric antenna tripod.

Maximum payload weight: 6 kg;
The device includes a polarization scale;
Tripod working max height: DAT-01 - 1750mm,
DAT-02 - 2700mm, DAT-03 - 3500mm;
Minimum height: DAT-01- 720mm, DAT-02 - 1070mm, DAT-03 - 1270mm.

BNP-01

BATTERY POWER SUPPLY UNIT.



Power supply voltage: ±12V (±15V; ±5V);
Number of batteries: 22 pcs.;
Batteries type: LR20 1.5 V;
Weight with batteries: 5.54 kg.

CASES “STANDARD” & “PROTECTION”

Hard carrying cases for antenna.

Manufactured for any type of antenna.

ABOUT COMPANY

Joint stock company "SKARD-Electronics" was founded in 2000. The company specializes in the development and production of a wide range of microwave/RF radio electronic devices. Thanks to its own material and technical base, innovative ideas and high potential of the company's employees, the company managed to reach the world level of product quality. Today the company is the largest manufacturer of measuring antenna systems in Russia. The office and factory of the company are located in Kursk, Russian Federation. In 2022, the company's staff amounted to 130 people.

Currently, the company plans to expand the markets for its products and is looking for trading partners and partners to localize production in foreign countries.

We welcome your interest in partnering with our company.

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NOTES

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