



# ANTENNA SOLUTION

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# Base Station Antenna

## SUMMARY OF FEATURES

- TETRA,GSM, UTRA, E-UTRA BTS Service
- Cross Polarization for 2TX and 2RX
- Panel Type(Fixed)
- Specification can be Customized



## SPECIFICATION

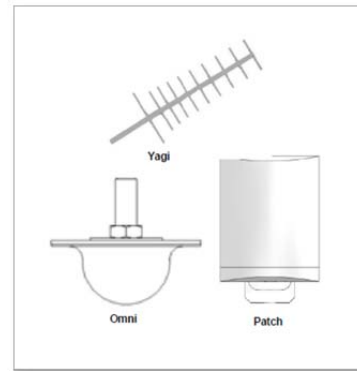
Frequency (MHz)	Pol	Gain (dBi)	Tilt	Beam Width		VSWR	Isolation (dB)	FBR (dB)	1st Sidelobe	CPR (dB)
				Hor	Ver					
380~500	X	11.5	Fixed	65°	35°	≤ 1.5:1	≥ 30	≥ 25	-	-
380~500	X	13	Fixed	65°	20°	≤ 1.5:1	≥ 30	≥ 25	-	-
380~500	X	14.5	Fixed	65°	18°	≤ 1.5:1	≥ 30	≥ 25	-	-
380~500	X	10	Fixed	88°	38°	≤ 1.5:1	≥ 30	≥ 20	-	-
380~500	X	13	Fixed	88°	20°	≤ 1.5:1	≥ 30	≥ 20	-	-
380~500	X	8	Fixed	115°	38°	≤ 1.5:1	≥ 30	≥ 18	-	-
698~894	X	15	Fixed	65°	13°	≤ 1.5:1	≥ 30	≥ 25	≥ 15	≥ 15
698~894	X	17	Fixed	65°	7.5°	≤ 1.5:1	≥ 30	≥ 25	≥ 18	≥ 15
698~894	X	14	Fixed	88°	13°	≤ 1.5:1	≥ 30	≥ 25	≥ 15	≥ 15
698~894	X	16	Fixed	88°	7.5°	≤ 1.5:1	≥ 30	≥ 25	≥ 18	≥ 15
1710~2170	X	15	Fixed	65°	13°	≤ 1.5:1	≥ 30	≥ 25	≥ 15	≥ 15
1710~2170	X	17	Fixed	65°	7.5°	≤ 1.5:1	≥ 30	≥ 25	≥ 18	≥ 18
1710~2170	X	19	Fixed	65°	5°	≤ 1.5:1	≥ 30	≥ 25	≥ 18	≥ 18
1710~2170	X	19	Fixed	33°	7.2°	≤ 1.5:1	≥ 30	≥ 25	≥ 18	≥ 15
1710~2170	X	18	Fixed	45°	7.5°	≤ 1.5:1	≥ 30	≥ 25	≥ 18	≥ 15
1710~2170	X	16	Fixed	88°	7.5°	≤ 1.5:1	≥ 30	≥ 25	≥ 18	≥ 15
1710~2170	X	14	Fixed	88°	14°	≤ 1.5:1	≥ 30	≥ 25	≥ 15	≥ 15
2496~2690	X	17	Fixed	65°	7°	≤ 1.5:1	≥ 30	≥ 25	≥ 18	≥ 15
2496~2690	X	14	Fixed	65°	13°	≤ 1.5:1	≥ 30	≥ 25	≥ 15	≥ 15
2496~2690	X	16	Fixed	88°	7.5°	≤ 1.5:1	≥ 30	≥ 25	≥ 18	≥ 15
2496~2690	X	18	Fixed	45°	7°	≤ 1.5:1	≥ 30	≥ 25	≥ 18	≥ 15
2496~2690	X	19	Fixed	33°	7°	≤ 1.5:1	≥ 30	≥ 25	≥ 18	≥ 15

Frequency (MHz)	Pol	Gain (dBi)	Tilt	Beam Width		VSWR	Isolation (dB)	FBR (dB)	1st Sidelobe	CPR (dB)
				Hor	Ver					
698~896, 1710~2170	X	14 16	Fixed	65° 65°	13° 7.5°	≤ 1.5:1	≥ 25	≥ 25	≥ 15	≥ 15
806~960, 1710~2170	X	14 17	Fixed	65° 65°	13° 7.5°	≤ 1.5:1	≥ 25	≥ 25	≥ 15	≥ 15
806~960, 1710~2170	X	14 17	Fixed	85° 80°	12° 7°	≤ 1.5:1	≥ 25	≥ 23	≥ 15	≥ 15
1885~2170, 2300~2390	X	14 14.5	Fixed	65° 55°	13° 13°	≤ 1.5:1	≥ 25	≥ 25	≥ 15	≥ 15
1710~2170, 1710~2170	X	15 15	Fixed	65° 60°	13° 13°	≤ 1.5:1	≥ 25	≥ 23	≥ 15	≥ 15
1710~2170, 1710~2170	X	16 16	Fixed	85° 85°	7° 7°	≤ 1.5:1	≥ 25	≥ 23	≥ 15	≥ 15
839~894	X	14.5	0°~14°	65°	14°	≤ 1.5:1	≥ 30	≥ 25	≥ 15	≥ 18
839~894	X	12.5	0°~14°	65°	23°	≤ 1.5:1	≥ 30	≥ 25	≥ 15	≥ 18
839~894	X	14.5	Fixed	65°	14°	≤ 1.5:1	≥ 30	≥ 25	≥ 15	≥ 18
839~894	X	14.5	8°	65°	14°	≤ 1.5:1	≥ 30	≥ 25	≥ 15	≥ 18
1710~2170	X	17	0°~10°	65°	7°	≤ 1.5:1	≥ 30	≥ 25	≥ 15	≥ 18
1710~2170	X	15.5	0°~10°	65°	10°	≤ 1.5:1	≥ 30	≥ 25	≥ 15	≥ 18
1710~2170	X	13.5	0°~14°	65°	15°	≤ 1.5:1	≥ 30	≥ 25	≥ 15	≥ 18
1920~2170	X	7.5	Fixed	70°	60°	≤ 1.5:1	≥ 25	≥ 15	-	≥ 18
1920~2170	V	10.5	Fixed	360°	7°	≤ 1.5:1	-	-	-	-
2500~2660	X	17	0°~10°	65°	7°	≤ 1.5:1	≥ 30	≥ 25	≥ 15	≥ 18
839~894, 1710~2170	X	5 7	Fixed	100° 70°	70° 65°	≤ 1.8:1 ≤ 1.5:1	≥ 20 ≥ 25	≥ 10 ≥ 15	-	≥ 15 ≥ 18
839~894, 1710~2170	X	4.5 6.5	Fixed	100° 70°	70° 65°	≤ 1.8:1 ≤ 1.5:1	≥ 20 ≥ 25	≥ 10 ≥ 15	-	≥ 15 ≥ 18
839~894, 1710~2170	V	4.5 6.5	Fixed	130° 70°	70° 65°	≤ 1.8:1 ≤ 1.5:1	-	≥ 5 ≥ 10	-	-
839~894, 1710~2170	X	14 13.5	0°~14°	65° 63°	13° 12°	≤ 1.5:1	≥ 30 ≥ 27	≥ 25	≥ 15	≥ 15
839~894 1710~2170	X	12 11.5	0°~14°	65° 63°	22° 20°	≤ 1.5:1	≥ 30 ≥ 27	≥ 23	≥ 13	≥ 15
839~894 1710~2170	X	13.5 13	0°~14°	65° 63°	13° 12°	≤ 1.5:1	≥ 30 ≥ 27	≥ 25	≥ 15	≥ 15
839~894 2500~2660	X	14 15.5	0°~14°	65° 63°	13° 9°	≤ 1.5:1	≥ 30 ≥ 27	≥ 25	≥ 15	≥ 15
839~894 1755~2130 2500~2660	X	14 13.5 14.5	0°~14° 0°~14° 0°~10°	65° 63° 63°	13° 12° 9°	≤ 1.5:1	≥ 30 ≥ 27 ≥ 27	≥ 25	≥ 15	≥ 15
839~894 1755~2130 2500~2660	X	5 7 7.5	Fixed	100° 70° 70°	70° 65° 65°	≤ 1.8:1	≥ 20 ≥ 25 ≥ 25	≥ 10 ≥ 15 ≥ 15	-	≥ 15 ≥ 18 ≥ 18

# Repeater Antenna

## SUMMARY OF FEATURES

- TETRA,GSM, UTRA, E-UTRA Repeater Service
- Donor, Service Antenna
- Specification can be Customized



## SPECIFICATION

Frequency (MHz)	Type	Pol	Gain (dBi)	Beam Width		VSWR	Tilt	Impedance (Ω)	Power Handling	Connector
				Hor	Ver					
380~470	Omni	V	0	360°	≥ 40°	≤ 1.5:1	Fixed	50	10 W	N (F)
824~894	Patch	V	6	90°	85°	≤ 2:1	Fixed	50	50 W	N (F)
824~894	Yagi	V	12	41°	37°	≤ 1.5:1	Fixed	50	50 W	N (F)
830~890	Omni	V	2	360°	≥ 40°	≤ 2:1	Fixed	50	10 W	N (F)
1710~2390	Yagi	V	12	28°	28°	≤ 1.5:1	Fixed	50	50 W	N (F)
1710~2500	Omni	V	2	360°	≥ 40°	≤ 1.5:1	Fixed	50	50 W	N (F)
1750~2170	Patch	V	7	60°	50°	≤ 1.5:1	Fixed	50	10 W	N (F)
1750~2390	Omni	V	2	360°	≥ 60°	≤ 1.5:1	Fixed	50	50 W	N-J (F)
2500~2600	Patch	V	7	65°	50°	≤ 1.5:1	Fixed	50	50 W	N (F)
2500~2700	Omni	V	2	360°	≥ 40°	≤ 1.5:1	Fixed	50	50 W	N (F)
2577~2607	Yagi	V	13	30°	30°	≤ 1.5:1	Fixed	50	50 W	N (F)
3400~3550	Patch	V	7	65°	50°	≤ 1.5:1	Fixed	50	50 W	N (F)
3400~3550	Yagi	V	12	30°	30°	≤ 1.5:1	Fixed	50	10 W	N (F)
698~960 1710~2690	Omni	V	2 3	360°	≥ 40°	≤ 1.7:1 ≤ 2.2:1	Fixed	50	50 W	N (F)
806~960 1710~2180	Yagi	V	10	55°	45°	≤ 1.8:1	Fixed	50	50 W	N (F)
819~960 1710~2690	Omni	V	2 3	360°	30°~140° 40°~80° 30°~80°	≤ 1.7:1	Fixed	50	10 W	N-J (F)
824~960 1710~2690	Yagi	V	7 11	90° 45°	65° 38°	≤ 1.7:1 ≤ 1.5:1	Fixed	50	50 W	N (F)

# Broadcast Antenna

## SUMMARY OF FEATURES

- FM, AM , UHF, VHF Broadcasting
- Specification can be Customized



## SPECIFICATION

Frequency (MHz)	Type	Pol	Gain	Beam Width		VSWR	Tilt	Impedance (Ω)	Power Handling	Connector
				Hor	Ver					
87.5~108	Panel	H	7 dBd	80°	56°	≤ 1.2:1	Fixed	50	2.5 kW	7/16Din (F)
VHF/UHF	Yagi	V	6 dBi	118°	70°	≤ 1.5:1	Fixed	50	250 W	N (F)
UHF	Panel	V	11 dBi	85°	60°	≤ 1.5:1	Fixed	50	250 W	N (F)
174~230	Panel	H / V	7 dBd	66°	61°	≤ 1.2:1	Fixed	50	1 kW	7/16Din (F)
174~230	Panel	H	11 dBd	62°	25°	≤ 1.2:1	Fixed	50	2 kW	7/16Din (F)
174~254	Panel	V	11 dBd	62°	25°	≤ 1.2:1	Fixed	50	2 kW	7/16Din (F)
215~242	Yagi	V	6 dBd	110°	55°	≤ 1.2:1	Fixed	50	400 W	7/16Din (F)
470~790	Panel	H / V	8 dBd	60°	60°	≤ 1.2:1	Fixed	50	750 W	7/16Din (F)
470~862	Panel	H	11 dBd	56°	26°	≤ 1.2:1	Fixed	50	1 kW	7/16Din (F)
470~862	Omni	H	2 dBd	360°	-	≤ 1.2:1	Fixed	50	350 W	7/16Din (F)
470~862	Omni	H	4 dBd	360°	-	≤ 1.2:1	Fixed	50	750 W	7/16Din (F)
470~862	Omni	H	7 dBd	360°	-	≤ 1.2:1	Fixed	50	1 kW	7/16Din (F)

# Cassegrain Antenna

## SUMMARY OF FEATURES

- Backhaul Network
- Specification can be Customized



## SPECIFICATION

Frequency (GHz)	Type	Pol	Gain (dBi)	3dB Beam Width	VSWR	Tilt	XPD (dB)	Size	Connector
7.13~7.75	Reflector	H / V	30	4.6°	≤ 1.5:1	Fixed	25	2ft (60cm)	WR112
7.75~8.50	Reflector	H / V	30	4.6°	≤ 1.5:1	Fixed	25	2ft (60cm)	WR112
10.5~10.7	Reflector	H / V	33	3.5°	≤ 1.5:1	Fixed	25	2ft (60cm)	WR75
10.7~11.7	Reflector	H / V	33	3.4°	≤ 1.5:1	Fixed	25	2ft (60cm)	WR75
12.7~13.25	Reflector	H / V	35	2.8°	≤ 1.5:1	Fixed	25	2ft (60cm)	WR75
14.25~15.35	Reflector	H / V	35	2.4°	≤ 1.5:1	Fixed	25	2ft (60cm)	WR75
17.7~19.7	Reflector	H / V	33	3.0°	≤ 1.5:1	Fixed	25	1ft (30cm)	WR42
17.7~19.7	Reflector	H / V	38	2.0°	≤ 1.5:1	Fixed	25	2ft (60cm)	WR42
21.2~23.6	Reflector	H / V	34	2.7°	≤ 1.5:1	Fixed	25	1ft (30cm)	WR42
21.2~23.6	Reflector	H / V	39	1.7°	≤ 1.5:1	Fixed	25	2ft (60cm)	WR42
24.25~26.5	Reflector	H / V	36	2.5°	≤ 1.5:1	Fixed	25	1ft (30cm)	WR42
24.25~26.5	Reflector	H / V	40	1.4°	≤ 1.5:1	Fixed	25	2ft (60cm)	WR42
27.3~31.3	Reflector	H / V	36	2.3°	≤ 1.5:1	Fixed	25	1ft (30cm)	WR28
27.3~31.3	Reflector	H / V	42	1.3°	≤ 1.5:1	Fixed	25	2ft (60cm)	WR28
37.0~40.0	Reflector	H / V	39	1.7°	≤ 1.5:1	Fixed	25	1ft (30cm)	WR28
37.0~40.0	Reflector	H / V	44	1.0°	≤ 1.5:1	Fixed	25	2ft (60cm)	WR28
57.0~64.0	Reflector	H / V	43	1.2°	≤ 1.5:1	Fixed	25	1ft (30cm)	WR15
57.0~64.0	Reflector	H / V	48	0.6°	≤ 1.5:1	Fixed	25	2ft (60cm)	WR15
71.0~76.0	Reflector	H / V	38	1.4°	≤ 2.0:1	Fixed	27	7in (18cm)	WR12
71.0~76.0	Reflector	H / V	43	0.9°	≤ 1.5:1	Fixed	25	1ft (30cm)	WR12
71.0~76.0	Reflector	H / V	49	0.5°	≤ 1.5:1	Fixed	25	2ft (60cm)	WR12
81.0~86.0	Reflector	H / V	39	1.4°	≤ 2.0:1	Fixed	27	7in (18cm)	WR12
81.0~86.0	Reflector	H / V	45	0.8°	≤ 1.5:1	Fixed	25	1ft (30cm)	WR12
81.0~86.0	Reflector	H / V	50	0.4°	≤ 1.5:1	Fixed	25	2ft (60cm)	WR12

# Standard Gain Horn Antenna

## SUMMARY OF FEATURES

- Specification can be Customized



## SPECIFICATION

Frequency (GHz)	Type	PoI	Gain (dBi)	3dB Beam Width	VSWR	Tilt	Size W x L x H (mm)	Connector
0.36~0.52	Horn	H / V	10	53°	≤ 1.4:1	Fixed	1010 x 1400 x 730	WR2100
0.50~0.74	Horn	H / V	10	53°	≤ 1.4:1	Fixed	760 x 1100 x 560	WR1500
0.75~1.10	Horn	H / V	10	53°	≤ 1.4:1	Fixed	460 x 440 x 330	WR975
1.13~1.70	Horn	H / V	10	53°	≤ 1.4:1	Fixed	320 x 280 x 240	WR650
1.70~2.60	Horn	H / V	10	53°	≤ 1.4:1	Fixed	210 x 350 x 160	WR430
2.60~3.90	Horn	H / V	10	53°	≤ 1.4:1	Fixed	145 x 230 x 110	WR284
3.95~5.85	Horn	H / V	10	53°	≤ 1.4:1	Fixed	100 x 190 x 70	WR187
4.9~7.00	Horn	H / V	10	53°	≤ 1.4:1	Fixed	75 x 130 x 60	WR159
5.90~8.20	Horn	H / V	15	28°	≤ 1.4:1	Fixed	150 x 175 x 120	WR137
7.10~10.0	Horn	H / V	15	28°	≤ 1.4:1	Fixed	110 x 185 x 80	WR112
8.30~12.3	Horn	H / V	20	18°	≤ 1.4:1	Fixed	140 x 205 x 110	WR90
10.0~15.0	Horn	H / V	20	18°	≤ 1.4:1	Fixed	110 x 160 x 85	WR75
12.4~18.0	Horn	H / V	20	17°	≤ 1.4:1	Fixed	95 x 130 x 70	WR62
15.0~22.0	Horn	H / V	20	17°	≤ 1.4:1	Fixed	80 x 115 x 60	WR51
18.0~26.5	Horn	H / V	24	9°	≤ 1.4:1	Fixed	110 x 275 x 90	WR42
22.0~33.0	Horn	H / V	24	9°	≤ 1.4:1	Fixed	95 x 220 x 75	WR34
26.5~40.0	Horn	H / V	24	9°	≤ 1.4:1	Fixed	75 x 175 x 60	WR28
33.0~50.0	Horn	H / V	24	9°	≤ 1.4:1	Fixed	60 x 150 x 50	WR22
40.0~60.0	Horn	H / V	24	9°	≤ 1.4:1	Fixed	50 x 130 x 43	WR19
50.0~75.0	Horn	H / V	24	9°	≤ 1.4:1	Fixed	40 x 95 x 32	WR15
60.0~90.0	Horn	H / V	24	9°	≤ 1.4:1	Fixed	34 x 85 x 28	WR12
75.0~110.0	Horn	H / V	24	9°	≤ 1.4:1	Fixed	30 x 75 x 25	WR10