



# KBT 20 Ports 2L4H+8T8R(2327) BF 2.0m Antenna

## KB65D90D0727A20-17D19F14F-I-W

Electrical Specifications					
Frequency Range (MHz)		2 × 690 – 960 (R1, R2)			
		690-792	792-880	880-960	
Polarization		±45°			
Electrical Downtilt (°)		2-12, Independently continuously adjustable			
Gain (dBi)	at mid Tilt	15.4	15.9	16.4	
	over all Tilts	15.3±0.9	15.8±0.9	16.3±0.9	
Side lobe suppression for first side lobe above main beam (dB)		>15	>15	>16	
Horizontal 3dB Beam Width (°)		65±5	62±4	63±6	
Vertical 3dB Beam Width (°)		11.1±0.9	10±0.9	8.9±0.5	
Cross-Polar Ratio, 0° (dB)		>20	>21	>21	
Front to Back Ratio, ±30° (dB)		>21	>22	>24	
Frequency Range (MHz)		4 × (1710 – 2690) (Y1, Y2, Y3, Y4)			
		1710-1880	1920-2170	2200-2500	2500-2690
Polarization		±45°			
Electrical Downtilt (°)		2-12, Independently continuously Adjustable			
Gain (dBi)	at mid Tilt	17.1	17.5	17.9	18.4
	over all Tilts	16.9±0.5	17.4±0.5	17.7±0.5	18.3±0.5
Side lobe suppression for first side lobe above main beam (dB)		>17	>17	>17	>15
Horizontal 3dB Beam Width (°)		69±6	65±4	62±6	57±5
Vertical 3dB Beam Width (°)		7.3±0.5	6.5±0.5	5.5±0.5	5.1±0.3
Cross-Polar Ratio, 0°(dB)		>18	>21	>21	>21
Front to Back Ratio, ±30° (dB)		>22	>25	>24	>24
VSWR		≤ 1.5			
Intermodulation IM3 (dBc)		≤ -150 (2 x 43 dBm carrier)			
Cross Polar Isolation (dB)		≥ 25 (R1, R2); ≥ 27 (Y1, Y2, Y3, Y4);			
Interband isolation (dB)		≥ 25			
Max. power per port (W)		250 (R1, R2); 200 (Y1, Y2, Y3, Y4)			
Impedance (Ω)		50			
Grounding		DC Grounding			
Values based on NGMN recommendations on Base Station Antenna Standards V12.0(BASTA V12.0)					

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General Electrical Properties		
General parameters	Frequency Range (MHz)	2300-2690 (Y5)
	Polarization	±45°
	Electrical Downtilt (°)	2-12, continuously adjustable
	Electrical downtilt tolerance (°)	±1
	Intermodulation IM3 (dBc)	≤ -140
	Max. power per port (W)	40 (at 50°C ambient temperature)
	Impedance (Ω)	50
	Grounding	DC Grounding
Calibration and electrical parameters	Coupling factor between calibration port and each antenna port (dB)	-26±2
	Max. amplitude tolerance from calibration port to input ports (dB)	0.9
	Max. phase tolerance from calibration port to input ports (°)	7
	VSWR	≤ 1.5
	Co-polarization isolation between ports (dB)	≥ 20
	Cross-polarization isolation between ports (dB)	≥ 23

TDD LTE Electrical Specifications			
Radiation parameters	Frequency Range (MHz)		2300-2690 (Y5)
	Single column beam	Gain (dBi)	14.0±0.8
		Horizontal 3dB Beam Width (°)	90
		Front to Back Ratio (dB)	>23
		Cross-Polar Ratio, 0° (dB)	>16
		Vertical 3dB Beam Width (°)	8.8±1.1
		Side lobe suppression for first side lobe above main beam (dB)	>15
	65° Broadcast beam	Gain (dBi)	14.7±1.0
		Horizontal 3dB Beam Width (°)	65
		Front to Back Ratio (dB)	>23
		Vertical 3dB Beam Width (°)	8.8±1.2
		Side lobe suppression for first side lobe above main beam (dB)	>15
	Service beam	0° direction Beam Gain (dBi)	19.1±0.8
		0° direction Beam Horizontal 3dB Beam Width (°)	28
		0° direction Beam Front to Back Ratio (dB)	>28
		0° direction Beam Cross-Polar Ratio (dB)	>19

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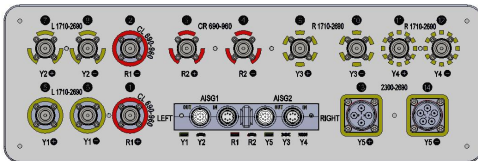


# KBT 20 Ports 2L4H+8T8R(2327) BF 2.0m Antenna

Mechanical Specifications	
RET type	Integrated RET (AISG2.0/3GPP)
AISG Connectors (2 in 2 out)	4x8 pin (in: Male; out: Female)
Connector	12x 4.3-10 Female, 1×MQ4 Male+1×MQ5 Male Bottom
Antenna dimensions (H x W x D) (mm)	2095 x 500 x 160
Packing dimensions (H x W x D) (mm)	2395 x 615 x 290
Antenna weight (kg)	39.2
Clamps weight (kg)	6.8
Diameter of installation pole (mm)	φ50 ~φ125
Radome material	Fiberglass
Radome color	Light grey
Operational temperature (°C)	-40 to +70
Wind load at 42m/s (N)	1636/ 392/ 1636 (Frontal/ Lateral/ Rearal)
Max. operational wind speed (km/h)	200

## Layout and Pattern

### Connector Position:

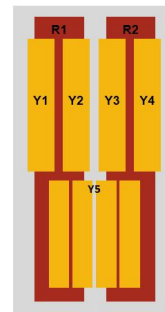


R1/ R2: 690-960MHz;

Y1/ Y2/ Y3/ Y4: 1710-2690MHz;

Y5: 2300-2690MHz;

### Configuration Types:



RET S/N:

KBxxx-R1-xx.....;

KBxxx-R2-xx.....;

KBxxx-Y1-xx.....;

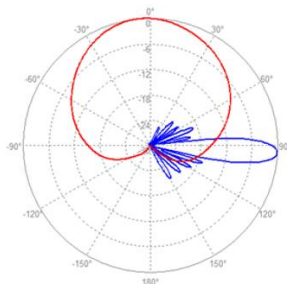
KBxxx-Y2-xx.....;

KBxxx-Y3-xx.....;

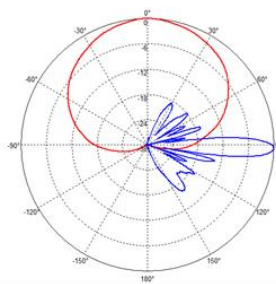
KBxxx-Y4-xx.....;

KBxxx-Y5-xx.....;

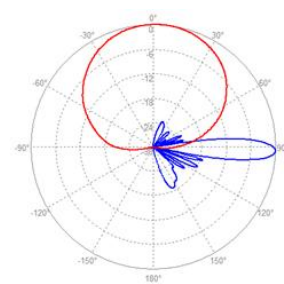
### Pattern sample for reference:



R1/R2: 690-960MHz



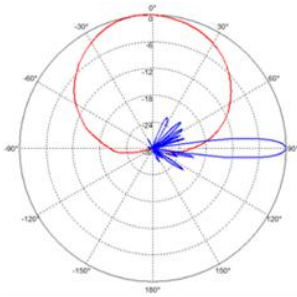
Y1/Y4: 1710-2690MHz



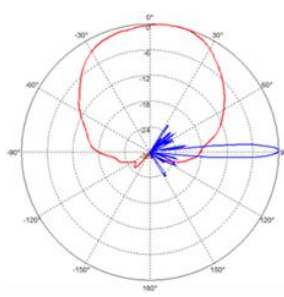
Y2/Y3: 1710-2690MHz



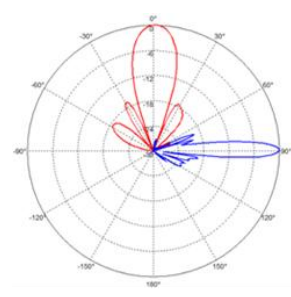
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Single column  
Y5: 2300-2690MHz



65° Broadcast  
Y5: 2300-2690MHz



Service 0°  
Y5: 2300-2690MHz