



KBT 16 Ports 2L2H+8T8R(1727) BF 2.5m Antenna

KB65D90D0727A16-16D18D16F-I-W

Electrical Specifications				
Frequency Range(MHz)		2*(690 – 960) (R1,R2)		
		698-803	803-880	880-960
Polarization		±45°		
Electrical Downtilt (°)		2-12, Independently continuously adjustable		
Gain (dBi)	at mid Tilt	15.7	16.1	16.4
	over all Tilts	15.6±0.9	16.0±0.7	16.3±0.8
Side lobe suppression for first side lobe above main beam (dB)		>15	>15	>15
Horizontal 3dB Beam Widtht (°)		65±7	61±7	58±7
Vertical 3dB Beam Widtht (°)		10.3±0.8	9.2±0.7	8.4±0.7
Cross-Polar Ratio , 0°(dB)		>18	>18	>18
Front to Back Ratio,±30° (dB)		>21	>22	>22
Frequency Range(MHz)		2*(1710 – 2690) (Y1,Y6)		
		1710-1880	1880-2200	2496-2690
Polarization		±45		
Electrical Downtilt(°)		2-12,Independently continuously Adjustable		
Gain (dBi)	at mid Tilt	16.7	17.3	18.4
	over all Tilts	16.5±0.6	17.2±0.7	18.3±0.7
Side lobe suppression for first side lobe above main beam (dB)		>16	>16	>15
Horizontal 3dB Beam Widtht (°)		69±7	67±6	58±5
Vertical 3dB Beam Widtht (°)		6.9±0.6	6.2±0.7	4.7±0.4
CPR at Boresight (dB)		>17	>21	>21
Front to Back Ratio , 30° (dB)		>25	>28	>26
VSWR		≤ 1.5		
Intermodulation IM3 (dBc)		≤-153 (2 x 43 dBm carrier)		
Cross Polar isolation (dB)		≥ 25(R1,R2); ≥ 27(Y1, Y6);		
Interband isolation (dB)		≥ 25		
Max. power per port(W)		250 (R1,R2);200 (Y1, Y6)		
Impedance (Ω)		50		
Grounding		DC Ground		
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)		4*(1710 – 2690) (Y2, Y3, Y4, Y5)	
			1710-2200	2496-2690
	Polarization		±45	
	Electrical Downtiltt (°)		2-12, continuously adjustable	
	Electrical downtilt tolerance(°)		±1	
	Max. power per unit(W)		50(at 50°C ambient temperature)	
	Impedance(Ω)		50	
Grounding		DC Ground		
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	

FDD LTE Electrical Specifications

Radiation parameters	Frequency Range(MHz)		4*(1710 – 2690) (Y2, Y3, Y4, Y5)		
			1710-2200	2496-2690	
	Single column beam	Gain(dBi)		15.0±0.6	15.7±0.6
		Horizontal 3dB Beam Widtht (°)		95±10	85±10
		Front to back ratio (dB)		> 25	> 25
		Cross-Polar Ratio, 0°(dB)		> 17	> 17
		Vertical 3dB Beam Widtht (°)		8.8±0.5	6.6±0.5
		Side lobe suppression for first side lobe above main beam (dB)		> 16	> 16
	Broadcast beam	Gain(dBi)		20.2±0.6	20.6±0.6
		Horizontal 3dB Beam Width t (°), Typical		65	65
		Front to back ratio (dB)		> 25	> 25
		Vertical 3dB Beam Widtht (°)		8.8±0.6	6.6±0.7
		Side lobe suppression for first side lobe above main beam (dB)		> 15	> 15
	Service beam	Gain(dBi)		20.2±0.6	20.6±0.6
		Horizontal 3dB Beam Widtht (°)		26	24
		Front to back ratio (dB)		> 30	> 30
		Cross-Polar Ratio, 0°(dB)		> 20	> 20
		Beam Isolation (dB)		> 20	> 20

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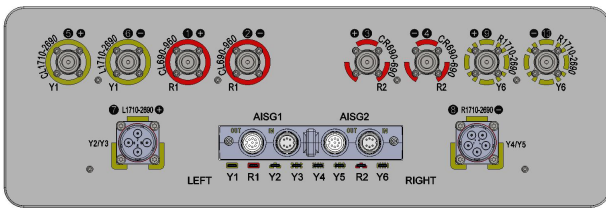
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Mechanical Specifications

RET type	Integrated RET (AISG2.0/3GPP)
AISG Connectors (2 in 2 out)	4x8 pin (in: Male; out: Female)
Connector	8 x 4.3-10 Female, 1 x (MQ4+MQ5), Bottom
Antenna dimensions (H x W x D) (mm)	2300x500x160
Packing dimensions (H x W x D) (mm)	2600x615x290
Antenna weight (kg)	40.1
Clamps weight (kg)	6.8
Diameter of installation pole(mm)	φ50-φ125
Radome material	Fiberglass
Radome color	Light grey
Operational temperature (°C)	-40 to +60
Wind load at 42m/s (N)	1392/422/1392 (Frontal/Lateral/Rearal)
Max. operational wind speed (km/h)	200

Layout and Pattern

Connector Position:



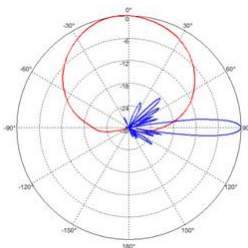
R1/R2: 690-960MHz;

Y1/ Y6: 1710-2690MHz;

Y2/ Y3/ Y4/ Y5: 1710-2690MHz

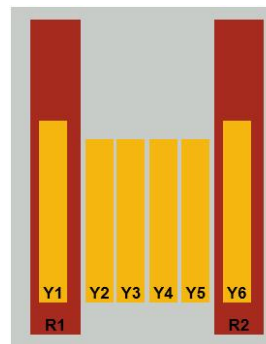
FDD BF PORTS with Cluster Jumpers MQ4/MQ5;

Pattern sample for reference:



R1/R2: 690-960 MHz

Configuration Types:



RET S/N:

KBxxx-R1-xx.....;

KBxxx-R2-xx.....;

KBxxx-Y1-xx.....;

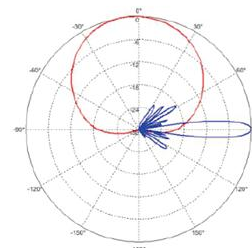
KBxxx-Y2-xx.....;

KBxxx-Y3-xx.....;

KBxxx-Y4-xx.....;

KBxxx-Y5-xx.....;

KBxxx-Y6-xx.....;



Y1/Y6:1710-2690 MHz

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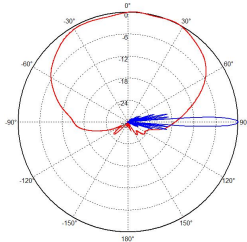
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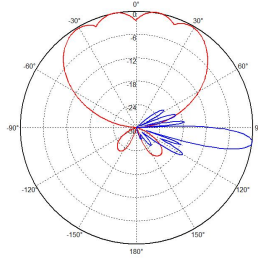


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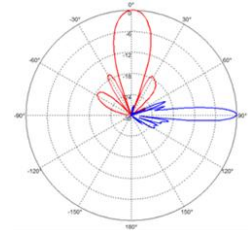
Single column

Y2/Y3/Y4/Y5: 1710-2690 MHz



NR Broadcast

Y2/Y3/Y4/Y5: 1710-2690 MHz



Service Beam (0°)

Y2/Y3/Y4/Y5: 1710-2690 MHz