

TF-2A4J2D42-F2A Data Sheet v0.1

FDD:XXXXXX Pol,694-960/694-960/1710-2690/1710-2690/1710-2690/1710-2690MHz

TDD:XXXX×2 Pol,2490-2690MHz

FDD:65/65/65/65/65 Horizontal beamwidth,16.0/16.0/17.0/17.0/17.0/17.0/17.0dBi TDD:60/16dB

E-Tilt,FDD:2-12/2-12/2-12/2-12/2-12/2-12;TDD:2-12

2.69m 30-Port 2L4M + 2×2.6G TDD Antenna with Integrated RCU

Electrical Properties(BASTA 11.1)

General Parameter	Frequency Band(MHz)		2490-2690(Y3,Y4)
	Polarization(°)		±45
	Electrical Downtilt (°)		2~12
	Impedance (Ω)		50
Calibration and Electrical Parameters	Amplitude Coupling (dB)		-26±2
	Coupled Amplitude Variation (dB)		0.9
	Coupled Phase Variation (°)		8
	VSWR		< 1.5
	Intraband Isolation (dB)		≥20(2-6°);≥25(7-12°)
	Cross polar Isolation (dB)		≥21(2-6°);≥26(7-12°)
	Input Power, Average (W)		250
Radiation parameters	Single column Beam	Gain (dBi)	16.5±1
		Horizontal 3dB Beamwidth (°)	65±15
		Vertical 3dB Beam Width(°)	5.8±0.5
		Cross Polar Ratio at 0° (dB)	15
		Cross Polar Ratio Sector ±60° (dB)	6
		Front to Back Ratio at 180±30° (dB)	22
	Broadcast Beam	±32.5°Sector Power Ratio(%)	72±7
		±60°Sector Power Ratio(%)	>90
		Gain(dBi)	18±0.5
		Vertical 3dB Beamwidth (°)	5.8±0.5
		Front to Back Ratio at 180±30°(dB)	23
	Service Beam	Upper Sidelobe Suppression (dB)	15
		0° Service Beam Gain Over All Tilts(dBi)	21±0.5
		0° Service Beam Horizontal 3dB Beamwidth(°)	20±2
		0° Service Beam Sidelobe Suppression(dB)	10
		0° Service Beam Cross Polar Ratio at 0°(dB)	18
		0° Service Beam Front to Back Ratio at 180±30°(dB)	25
		±30° Service Beam Gain(dBi)	18±0.5
		±30° Service Beam Horizontal 3dB Beamwidth(°)	22±2
		±30° Service Beam Sidelobe Suppression(dB)	3

Electrical Properties(BASTA 11.1)

Frequency Band(MHz)	694-960(R1,R2)			1710-2690(Y1,Y2,Y5,Y6)			
	694-803	790-894	880-960	1710-1990	1920-2200	2300-2400	2490-2690
Polarization	±45°						
Gain(dBi)	15.7±0.5	15.9±0.5	16.3±0.5	16.1±0.5	16.6±0.5	16.9±0.5	17.3±0.5
Horizontal 3dB Beam Width(°)	70±4	65±5	63±6	67±5	65±5	64±5	63±6
Vertical 3dB Beam Width(°)	8.1±0.8	7.5±0.5	7±0.5	7.5±0.6	6.9±0.6	6.0±0.3	5.5±0.3
Front to Back Ratio at 180±30°(dB)	23	23	23	24	24	24	24
Cross Polar Ratio at 0°(dB)	18	18	18	18	18	18	18
Cross Polar Ratio Sector ±60°(dB)	8	8	8	8	8	8	8
1st Upper Sidelobe Suppression(dB)	16	16	16	16	16	16	16
Electrical Downtilt(°)	2-12			2-12			
VSWR	< 1.5			< 1.5			
Cross-polar Isolation(dB)	>26			>26			
Interband Isolation(dB)	R1//R2>25;R1,R2//Y1,Y2,Y3,Y3 > 28						
3rd Order PIM(dBc) @ 2 x 43 dBm	< -150						
Impedance(Ω)	50						
Power Handling(W)	300			250			

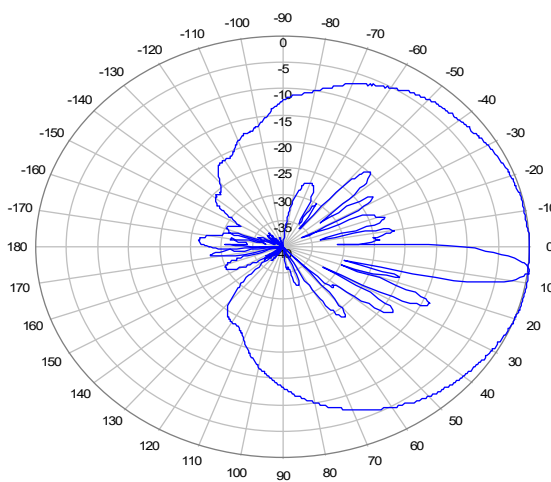
Mechanical Specifications

Antenna Dimensions (HxWxD) (mm)	2685 x 499 x 199
Packing Dimensions (HxWxD) (mm)	2970 x 569 x 279
Antenna Weight (kg)	48
Packed Weight (kg)	66
Connector	12 x 4.3-10 Female + 2 x MQ4 + 2 x MQ5
Radome Material	Fiberglass
Wind Load at 150 km/h(N) (Front /Rear/Side)	1556/1817/475
Maximum Wind Speed(km/h)	200
Diameter of Installation Pole(mm)	Φ50-Φ114
Operating Temperature Range(°C)	-40-+65
Lightning Protection	DC Ground
RET Type	Integrated RCU
RET Protocols	AISG 2.0/3GPP

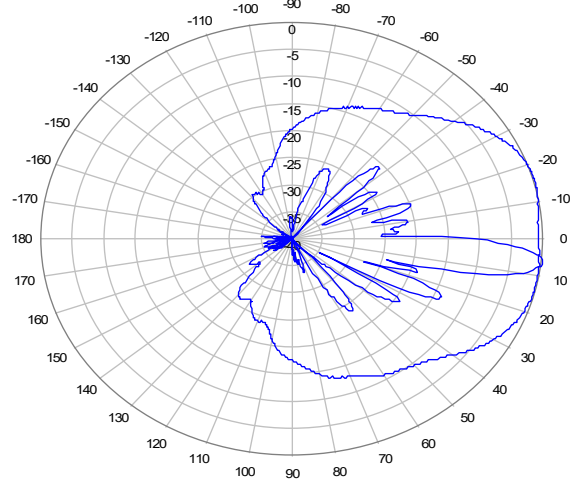


Pattern sample for reference

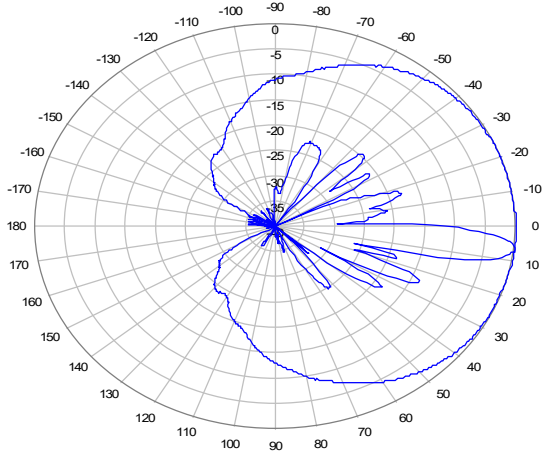
694-960MHz



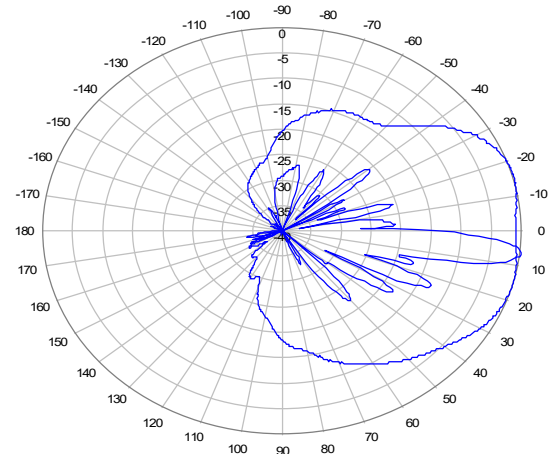
1710-26900MHz



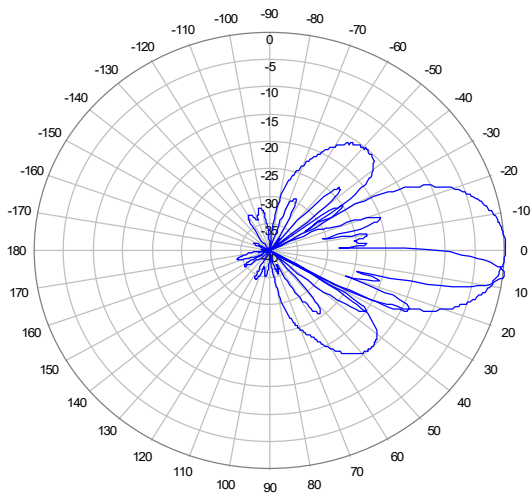
2490-2690Mhz Single Column Beam



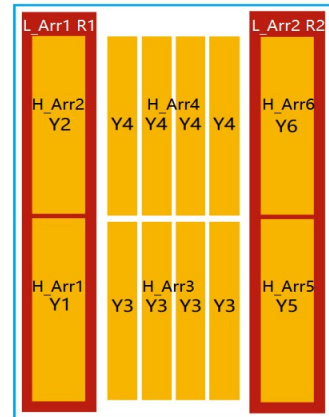
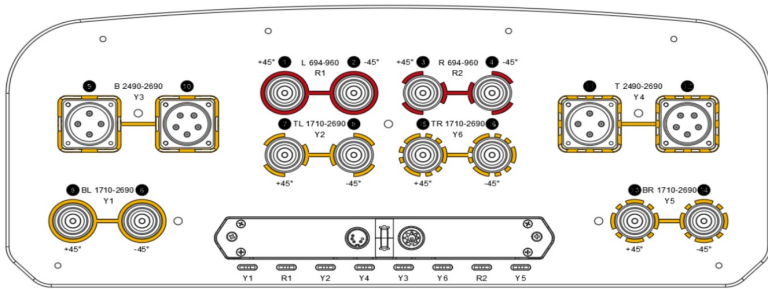
2490-2690Mhz BroadCast Beam



2490-2690Mhz 0° Sercice Beam



Layout of interface



Array ID	RF Connector	RET (S RET)	Frequency (MHz)	AISG RET UID
R1	1-2	1	698-960	MKxxxxxxxxxxxxxxxxR1
R2	3-4	2	698-960	MKxxxxxxxxxxxxxxxxR2
Y1	5-6	3	1710-2690	MKxxxxxxxxxxxxxxxxY1
Y2	7-8	4	1710-2690	MKxxxxxxxxxxxxxxxxY2
Y3	9-10	5	2490-2690	MKxxxxxxxxxxxxxxxxY3
Y4	11-12	6	2490-2690	MKxxxxxxxxxxxxxxxxY4
Y5	13-14	7	1710-2690	MKxxxxxxxxxxxxxxxxY5
Y6	15-16	8	1710-2690	MKxxxxxxxxxxxxxxxxY6

* For more information, please refer to the specification of RET.

Accessories

Item	Item	Weight	Mechanical Tilt Range	Quantity
Mounting Kit	MJM-020-1101A2	8.0kg	0-8°	1