

Antenna Specification

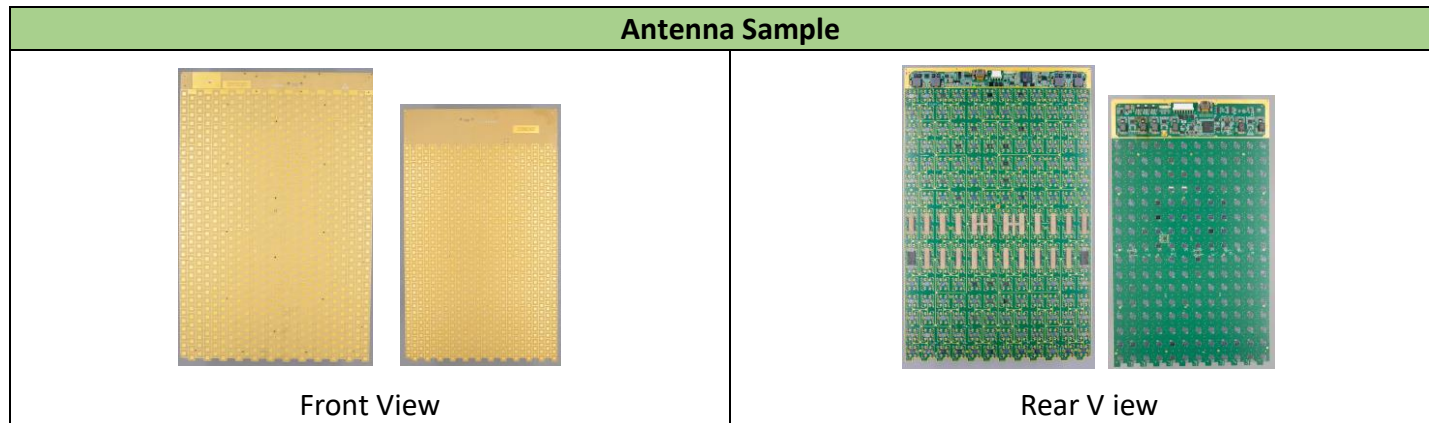
Hybrid Electronic Steering Terminal

Model No.: HSA-MUF ESA50 HSA-PUF ESA-MUF

Satellite

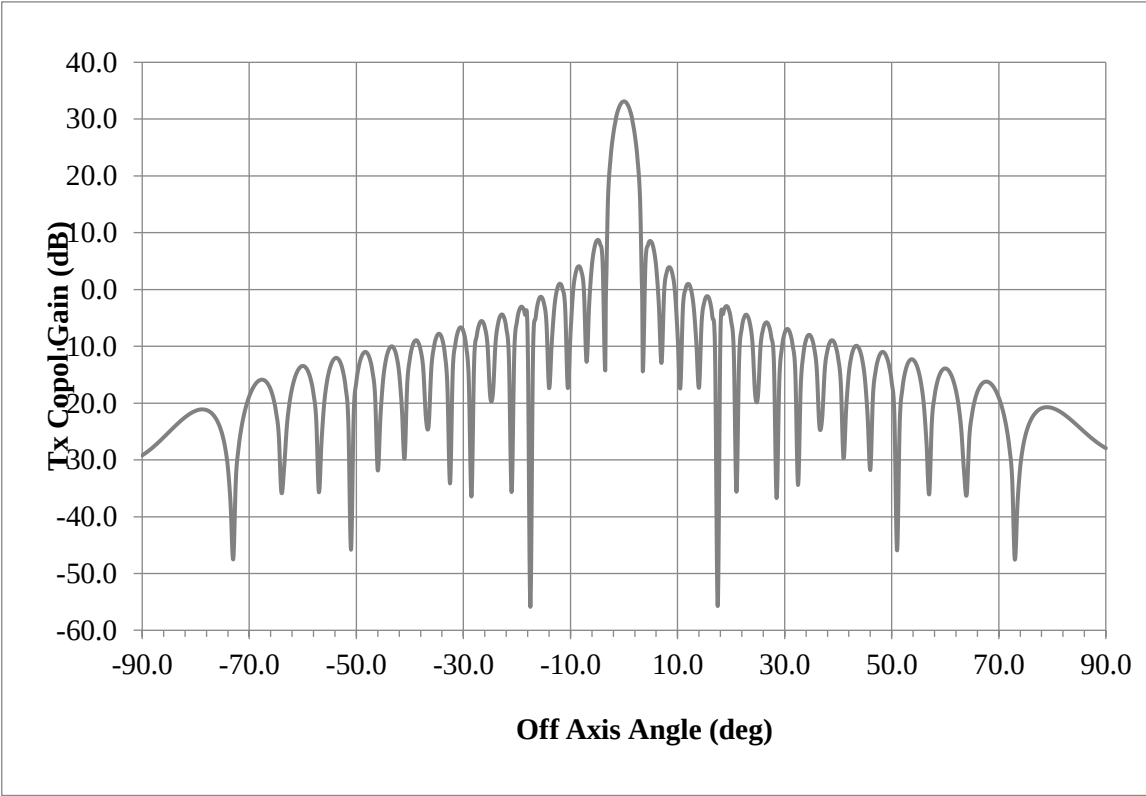
1. Antenna Design Parameters

Item		Parameter
Antenna Type		phased-array antenna
Equivalent to parabolic antenna size		0.30m
Antenna Efficiency		65%
Frequency Range	Tx	13.75~14.50GHz
	Rx	10.70~12.75GHz
Polarization		Full polarization, automatic switching
Receiving Gain		33.0dBi(in range of ± 5 degree)
		8.60dBi(out range of ± 5 degree)
Transmitting Gain		33.1dBi(in range of ± 5 degree)
		8.60dBi(out range of ± 5 degree)
G/T		9.5dB/K
First Sidelobe		≤ 13 dB
Cross Polarization Isolation		> 30 dB
Tx/Rx Polarization Isolation		> 85 dB
VSWR		$< 1.2:1$
Interface type		SMA



According to the antenna plots provided by the manufacturer, the satellite antenna complies with the requirement of §25.209(a)(2),(5).

2. Radiation Pattern - Linear - Frequency : 14.5 GHz – TX – Co_Polariztion– Horizontal



Frequency (GHz)	Gain (dBi)	HPBW 3dB
14.5	33.1	5

3. Radiation Pattern - Linear - Frequency : 14.5 GHz – TX – cross-polarized –HV -7.5 to 7.5

