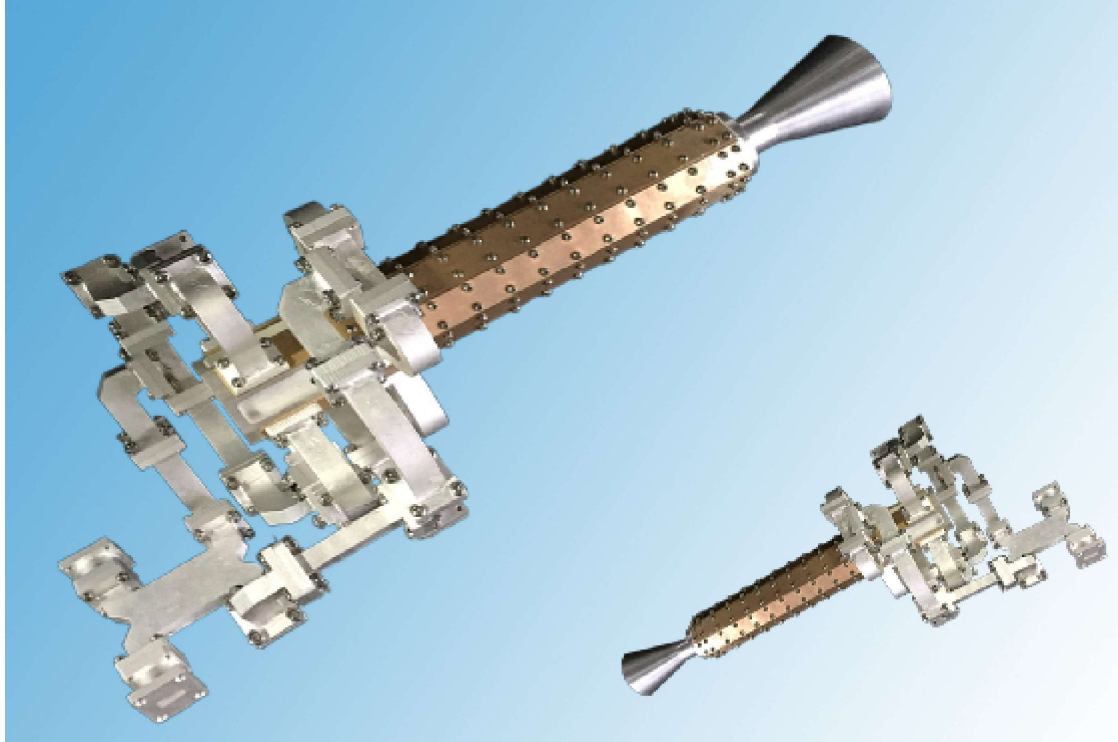


C & Ku-band - X & Ku-band - X & Ka-band Feed Network. OMT- duplex Feed System for satellite antenna



Feed system, being the primary radiator, plays a fatal role in antenna systems. Therefore, it's regraded as the heart of antenna. It is used to provide effective radiation for parabolic antenna, sort the electromagnetic wave reflected from refelctor to keep their Pol. direction same, do impedance conversion so that the electromagnetic wave in the feed transferred from Circular waveguide transmission to rectangular waveguide transmission. Thus, the antenna efficiency can be improved.

C&Ku-band Feed Network Features:

This feed network is mainly composed of C/Ku band feed line network and pol. motorized adjusting device. C/Ku band is dual circular/linear pol. type. Feed line system consists of pol. motorized adjusting device and feed network, which is composed of waveguide components, such as rotary joints, SOMC, low pass filter etc. They can share one C/Ku band corrugated horn.

X&Ka-band Feed Network Features:

X/Ka dual band feed line network finishes the X and Ka band signal separation mainly by the HP characteristics of SOMC. It can receive X/Ka dual band dual circular pol. signals simultaneously. And it owns rotary joints for linear and circular pol. switchable, which can share a corrugated horn as feed system.

TYPE	C&Ku-band Feed Network		X&Ka-band Feed Network	
Frequency GHz	C-band	Ku-band	X-band	Ka-band
	3.4~4.2	10.95~12.75	7.25~7.75	17.7~21.2
Axial ratio,dB(Ratio)	≤1.06	≤1.15	≤2.0	≤2.0
Cross Polarization Isolation	≥30dB (on axis)		≥30dB (on axis)	
VSWR	≤1.35	≤1.35	≤1.35	≤1.35
Feed Intertion Loss dB	0.35	0.55	0.2	0.3
Feed Interface	CPR-229	WR-137	BJ—84	BJ—220
Polarization	C-band: Dual circular Pol./dual Linear Pol.		X-band: Dual circular Pol./dual Linear Pol.	
	Ku-band: Dual circular Pol./dual Linear Pol.		Ka-band: Dual circular Pol./dual Linear Pol.	
Polarization mode	Motorized Switchable Polarization		Motorized Switchable Polarization	
Port Isolation dB	Linear Pol.: ≥30dB			
	Circular Pol.: ≥30dB			
Frequency Isolation	≥30dB		≥30dB	
Port output	C-band: 2 ports(RHCP/VLP, LHCP/VLP)		X-band: 2 ports(RHCP/VLP, LHCP/VLP)	
	Ku-band: 2 port(RHCP/VLP, HLP, VLP)		Ka-band: 2 port(RHCP/VLP, HLP, VLP)	

