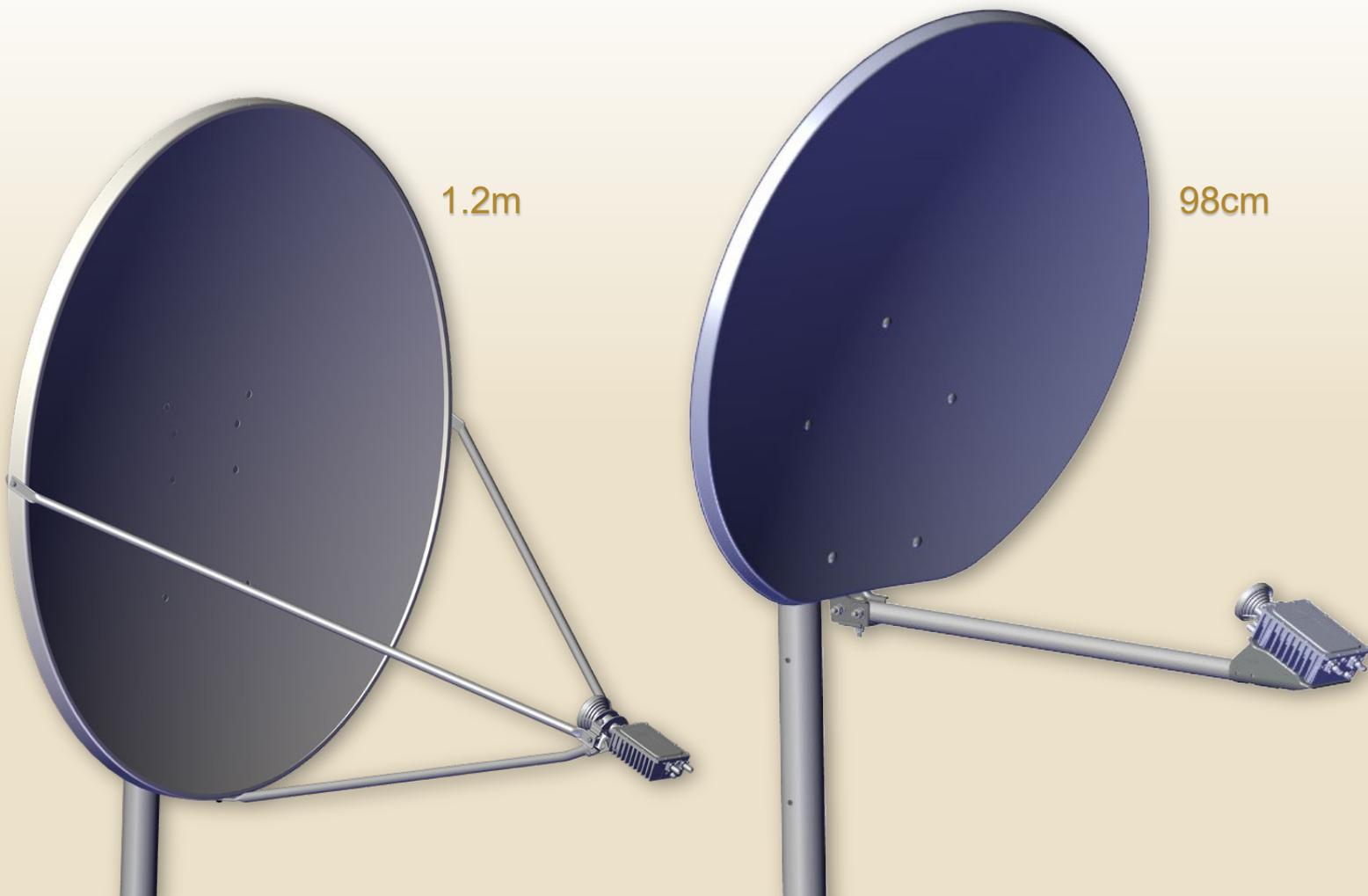


These rugged antenna systems are rugged commercial-grade antennas, suitable for the most demanding applications to be used with SpaceBridge 3W Ku-band or Ka-band Transceivers

Key Features

- Fine azimuth and elevation adjustment features.
- Meets or exceeds regulatory agency requirements.
- Integrated with SB 3W and 4W Ku and Ka-band transceivers via mounting bracket.
- Can be provided with the following options:
 - Tri-mast to fit any surface
 - 2x30m RG-6 color coded coaxial cables
 - 4' x 4' Non-Pen Mount (98cm antennas)



SBAF-Type 98cm and 1.2m Ku and Ka-bands TxRx Class I Antenna Systems

Specifications

Model #		SBAF098U	SBAF120U	SBAF098A	SBAF120A
Frequency range		Ku-band		Ka-band	
Class		Class I		Class I	
Mechanical					
Effective aperture		98cm	120cm	98cm	120cm
Platform geometry/optics		One-piece offset feed prime focus		One-piece offset feed prime focus	
Pointing		Fixed		Fixed	
Azimuth range		360° continuous (±5° fine adjustment)		360° continuous (±5° fine adjustment)	
Elevation range		5° - 90° continuous		5° - 90° continuous	
Material		Steel	SMC	Steel	SMC
Mast pipe interface diameter		60.3mm	73.2mm or 76mm	60.3mm	73.2mm or 76mm
Environmental					
Wind operational		56km/h		56km/h	
Wind survival		201km/h		201km/h	
Temperature range		-50°C to +60°C	-50°C to +80°C	-50°C to +60°C	-50°C to +80°C
Humidity		0 – 100% (non-condensing)		0 – 100% (non-condensing)	
Atmosphere		720 hours STM B-117 (salt fog test)		720 hours STM B-117 (salt fog test)	
Solar radiation		360BTU/h/ft ²		360BTU/h/ft ²	
RF					
Frequency range (GHz)	Tx	13.75 – 14.50	13.75 – 14.50	28.00 – 30.00	28.30 – 30.00
	Rx	10.70 – 12.75	10.70 – 12.75	17.80 – 20.20	18.10 – 20.20
Gain	Tx	41.3dB @ 14.5GHz	43.3dB @ 14.3GHz	47.2dB @ 30.0GHz	49dB @ 29GHz
	Rx	40.6dB @ 12.75GHz	41.8dB @ 12.00GHz	44.0dB @ 20.2GHz	45.6dB @ 19.2GHz
Gain variation		±0.2 dB	±0.3 dB	±0.2 dB	±0.3 dB
Polarization		Linear orthogonal		Circular RH or LH	
Sidelobe compliance		100 λ/D < θ < 20°	29 - 25 Log θ dB	100 λ/D < θ < 20°	29 - 25 Log θ dB
		20° < θ < 26.3°	-3.5 dB	20° < θ < 26.3°	-3.5 dB
		26.3° < θ < 48°	32-25 Log θ dB	26.3° < θ < 48°	32-25 Log θ dB
		48° < θ < 180°	-10 dB (averaged)	48° < θ < 180°	-10 dB (averaged)
VSWR	Tx	1.3:1	1.3:1	1.3:1	1.3:1
	Rx	1.3:1	1.3:1	1.3:1	1.3:1
Isolation	Tx	90dB		90dB	
	Rx	40dB		80dB	
Cross pol 1dB beamwidth	Tx	30dB		25dB	
	Rx	30dB		22dB	
Noise temperature (@ elevation angle)		53K @ 30°	48K @ 10° 35K @ 20° 30K @ 30°	44K @ 30°	90K @ 10° 53K @ 20° 51K @ 30°