

## MULTIBAND FEED AND ANTENNA THREAT SERIES

ARA has a wide variety of Prime-Focus, Offset, Gregorian, and Cassegrain feeds and antennas for multi-band applications. These multi-band feeds are designed to minimize phase center movement. This helps to better focus the feed within the reflector for optimal gain, providing the highest possible EIRP and G/T.

ARA designs, simulates, manufacturers, and tests all feed solutions inhouse. The product family can support the most demanding threat emitter requirements to include high power handling. ARA utilizes its fully staffed, Middleborough, MA outdoor test range to go beyond bench tests to ensure all specifications are met.

ARA also offers reflectors, positioners, and controllers to support antenna subsystems. These subsystems support high power radar and threat emitter systems.

The data described herein is subject to licensing under the International Traffic Arms Regulations (ITAR) 22 CFR Parts 120-130. This data sheet has been released into the public domain in accordance with these regulations.



## **FEATURES**

- Multiple Frequencies in a Single Feed
- Dual Polarization for Both Transmit and Receive
- Motorized or Non-motorized
- Optional Reflectors
- Optional Positioners and Controllers
- Made in the USA

Revised October 2020

Multiband Threat Frequencies (GHz)								
Model	P-Band	L-Band	S-Band	C-Band	X-Band	Ku-Band	K-Band	Ka-Band
0239-800K	670 - 850 MHz			4.9 - 5.1				
0240-800H		1.0 - 1.1			6.9 - 10.02			
C0730-520			2 - 3.6			6 - 18		
0051-800			Rx: 2.0 - 3.5		Tx: 6.0 - 9.9			
9244-800C			2 - 4		8 - 12	14 - 18		
C0730-800P			2 - 3.6		6.5 - 10	6 - 18		
C0911-860B			1.5 - 2.5		7.7 - 8.5			
C1835-800C			2 - 4		8.2 - 12.4			
9170-800			2 - 4		8 - 12.4	12 - 18		
C0731-800R				3.6 - 6.5		10 - 18		
C1238-800				4.0 - 8.0		12.4 - 18		
C1836-800D				4 - 8.2		12.4 - 18		
C0730-509					6.5 - 10			
0452-810F					9.3 - 10.0			34 - 36
0051-820			_		_	6 - 18		

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Multiband Threat							
Model	Power	Polarization	VSWR				
0239-800K	0.67 - 0.85 RHCP, 50KW Peak, 140W Avg 4.9 - 5.1 GHz Slant 45°, 1 MW Peak, 1 kW Avg	RHCP/ Slant 45°	2.0:1				
0240-800H	1.0 - 1.1: 2 kW Peak, 120 W Avg 6.9 - 7.1: 800 W CW 7.6 - 9.6: 250 kW Peak, 250 W Avg 9.99 - 10.02: 500 W CW	Slant 135°/ Slant 45°	2.0:1				
C0730-520	S-Band: 2 kW Peak, 120 W Avg Ku-Band: 300 W CW	Linear	2.0:1				
0051-800	4 kW Peak, 250 W Avg	Rotatable Vertical/Horizontal/±45°	2.0:1				
9244-800C		Dual Linear	S-Band (Quad Ridge): 2.0:1 X and Ku-Band: 1.5:1				
C0730-800P	1/ Prime Focus: 2 kW Peak, 120 W Avg 2/ Cassegrain: 2 kW Peak, 120 W Avg 3/ Prime Focus: 300 W CW	1/ Prime Focus: V/± Slant 45°/H Selectable 2/ Cassegrain: Orthogonal to Port 1 3/ Prime Focus: V/± Slant 45°/H Selectable	2.0:1				
C0911-860B	S-Band: 40W CW X-Band: 500W CW	Dual CP X and S Bands					
C1835-800C	2 kW Peak 500 W CW	Port 1: V/± Slant 45°/H Selectable Port 2: Orthogonal to Port 1					
9170-800	Dual Polarized Horns: 2 kW Peak, 1µS Pulsewidth; 80W Avg Monopulse Feed: 1 W Avg	2 - 4 GHz Dual Linear X-Band Monopulse 5 Horn, Linear X-Band 8-12 GHz Dual Linear Ku-Band 12-18 GHz Dual Linear	2 - 4 GHz = 2.0:1 Max X-Band Monopulse = 2.0:1 Max X-Band 8-12 GHz = 2.0:1 Max Ku Band 12-18 GHz = 2.0:1 Max				
C0731-800R	Port 1: 2 kW Peak, 120 W Avg Port 2: 2 kW Peak 120 W Avg	Port 1: V/± Slant 45°/H Selectable Port 2: Orthogonal to Port 1	2.0:1				
C1238-800	5 kW @ 6% Duty Cycle 500 W CW Min		2.0:1				
C1836-800D	2 kW Peak 500 W CW	Port 1: V/± Slant 45°/H Selectable Port 2: Orthogonal to Port 1					
C0730-509	2 kW Peak 120 W Avg	Linear	2.0:1				
0452-810F	X-Band: 5 kW Peak, 350 W CW Ka-Band: 2 kW Peak, 15% Duty						
0051-820	250 W CW	Linear Adjustable Vertical/Horizontal	2.0:1				