

### Multiband Feed and Antenna: Threat Series

ARA has a wide variety of Prime-Focus, Offset, Gregorian, and Cassegrain feeds and antennas for multiband applications. The design minimizes phase center movement and focuses the feed within the reflector for optimal gain. This design provides the highest possible Effective Isotropic Radiated Power (EIRP) and Gain-to-Noise-temperature ratio (G/T).

This product family can support the most demanding threat emitter requirements to include high power handling. The feeds are designed, simulated, manufactured, and tested at the in-house facility at Pembroke, Massachusetts. Additionally, ARA utilizes its fully staffed Middleborough, Massachusetts, outdoor test range to go beyond bench tests to ensure that the products meet specifications.

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

<b>Antenna Type</b>	Antenna, Feed
<b>Application</b>	Commercial SATCOM, Military SATCOM, Simulator/Threat Emitter
<b>Frequency Band</b>	UHF (0.3 - 6 GHz), L (1 - 2 GHz), S (2 - 4 GHz), C (4 - 8 GHz), X (8 - 12 GHz), Ku (12 - 18 GHz), Ka (27 - 40 GHz)
<b>Polarization</b>	Dual Linear, Left Hand Circular, Linear Adjustable, Linear, Right Hand Circular, Rotatable, Slant, Vertical



**0051 Antenna Model**

#### FEATURES

- Multiple frequencies using a single feed
- Dual polarization for transmission and reception
- Motorized or non-motorized options available
- Optional reflectors available
- Optional positioners and controllers available
- Made in the USA

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## Frequencies

Model	P Band	L Band	S Band	C Band	X Band	Ku Band	K Band	Ka Band
<b>0239-800</b>	670 - 850 MHz			4.9 - 5.1 GHz				
<b>0240-800</b>		1.0 - 1.1 GHz			6.9 - 10.02 GHz			
<b>C0730-520</b>			2 - 3.6 GHz			6 - 18 GHz		
<b>0051-800</b>			Rx: 2.0 - 3.5 GHz		Tx: 6.0 - 9.9 GHz			
<b>C0730-800</b>			2 - 3.6 GHz		6.5 - 10 GHz	6 - 18 GHz		
<b>C0911-860</b>			1.5 - 2.5 GHz		7.7 - 8.5 GHz			
<b>C0731-800</b>				3.6 - 6.5 GHz		10 - 18 GHz		
<b>C1238-800</b>				4.0 - 8.0 GHz		12.4 - 18 GHz		
<b>C0730-509</b>					6.5 - 10 GHz			
<b>0452-810</b>					9.3 - 10.0 GHz			34 - 36 GHz
<b>0051-820</b>						6 - 18 GHz		

## Specifications

Model	Power	Polarization	VSWR Nominal
<b>0239-800</b>	0.67 - 0.85 GHz RHCP, 50KW Peak, 140W Avg 4.9 - 5.1 GHz Slant 45°, 1 MW Peak, 1 kW Avg	RHCP / Slant 45°	2.0:1
<b>0240-800</b>	1.0 - 1.1 GHz: 2 kW Peak, 120 W Avg 6.9 - 7.1 GHz: 800 W CW 7.6 - 9.6 GHz: 250 kW Peak, 250 W Avg 9.99 - 10.02 GHz: 500 W CW	Slant 135° / Slant 45°	2.0:1
<b>C0730-520</b>	S Band: 2 kW Peak, 120 W Avg Ku Band: 300 W CW	Linear	2.0:1
<b>0051-800</b>	4 kW Peak, 250 W Avg	Rotatable Vertical / Horizontal / ±45°	2.0:1
<b>C0730-800</b>	Prime Focus: 2 kW Peak, 120 W Avg Cassegrain: 2 kW Peak, 120 W Avg Prime Focus: 300 W CW	Prime Focus: V / ±Slant 45° / H Selectable Cassegrain: Orthogonal to Port 1 Prime Focus: V / ±Slant 45° / H Selectable	2.0:1
<b>C0911-860</b>	S Band: 40 W CW X Band: 500 W CW	Dual CP X and S Bands	S Band LHCP: 1.22:1 Max S Band RHCP: 1.32:1 Max X Band LHCP: 1.42:1 Max X Band RHCP: 1.15:1 Max
<b>C0731-800</b>	2 kW Peak, 120 W Avg	Port 1: V / ±Slant 45° / H Selectable Port 2: Orthogonal to Port 1	2.0:1
<b>C1238-800</b>	5 kW @ 6% Duty Cycle 500 W CW Min	V / ±Slant 45° / H	2.0:1
<b>C0730-509</b>	2 kW Peak, 120 W Avg	Linear	2.0:1
<b>0452-810</b>	X Band: 5 kW Peak, 350 W CW (SUM PORT) Ka Band: 2 kW Peak	Linear (Horizontal & Vertical) Circular (RHCP & LHCP)	1.5:1
<b>0051-820</b>	250 W CW	Linear Adjustable Vertical / Horizontal / ±45°	2.0:1



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