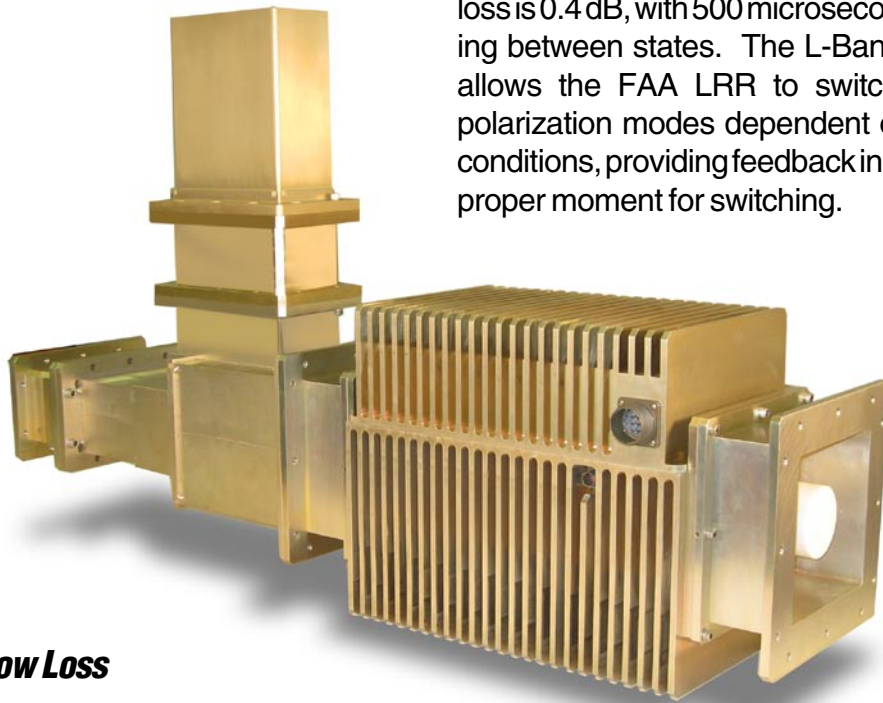




# High-Power Air-Cooled L-Band Polarizer

## Data Sheet

This L-Band Polarizer sets a new standard for air-cooled ferrite control devices required to operate at high average power levels. Capable of switching between vertical linear and right-hand circular polarization, the L-Band Polarizer handles 65 kW peak and 6.5 kW average power. Maximum insertion loss is 0.4 dB, with 500 microseconds switching between states. The L-Band Polarizer allows the FAA LRR to switch between polarization modes dependent on weather conditions, providing feedback indicating the proper moment for switching.



-  **Low Loss**
-  **Air-Cooled**
-  **High Average Power**
-  **500 microsecond Switching**
-  **Switches Between Vertical Linear and Right-Hand Circular Polarization**
-  **RF Signal Available to Prompt Switching**



## High-Power Air-Cooled L-Band Polarizer

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### Performance

Operating Temperature .....	-32°C to +60°C
Non-Operating Temperature .....	-40°C to +60°C
Altitude .....	50,000 feet
Humidity .....	14% to 100% non-condensing
Weight .....	200 pounds maximum
Input Waveguide/Flange .....	WR650/CPR flat
Output Waveguide/Flange .....	6.046 inches square/custom
Frequency Range .....	1.212 GHz to 1.353 GHz
Operating RF Power .....	65 kW peak/6.5 kW average
RF Leakage .....	less than -90 dB
Switching Speed .....	≤500 microseconds
Switching Rate .....	≤50 Hz, 1 to 150 commands/scan
VSWR .....	1.50 : 1 (-13.98 dB return loss)
Insertion Loss .....	0.4 dB maximum
Polarization Angle Error .....	2 degrees maximum
Control Interface / Built-In-Test .....	RS-422
Voltage/Current .....	15 Vdc, 2.5 A average/5 A peak for 1 ms
Air Flow .....	0.505 pound-mass/second ambient air

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