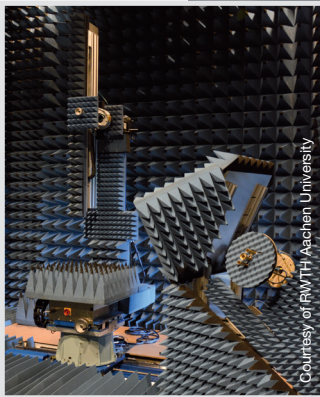


Dual Polarized CATR Feed for Cross-Polarization Reduction



CXR installed in a single reflector diagonal-fed CATR system



SOLUTION FOR

- Cross-polar reduction in uncompensated CATR systems (side/corner-fed single reflector, dual cylindrical reflector)

Main features

Technical performance

- Dual linear polarization with high polarization purity and isolation
- Symmetric radiation pattern with high cross-polar performance
- Stable amplitude taper with frequency
- Optimized reflector edge and chamber illumination
- Low return loss / VSWR

Design

- Patented Ortho-mode junction with end-launch coaxial feeding
- Reconfigurable feeding network optimized upon the specific CATR system geometry
- Lightweight for easy handling

Surface treatment

- Surtec 650 according to MIL-C 5541E class 3

Repeatability

- Stiff and robust mechanical design
- Precision pins for accurate polarization alignment
- Precision machined
- High reliability coaxial connectors

Delivered documents

- Typical performance data (TYMEDA™)
- Measured return loss data

Product configuration

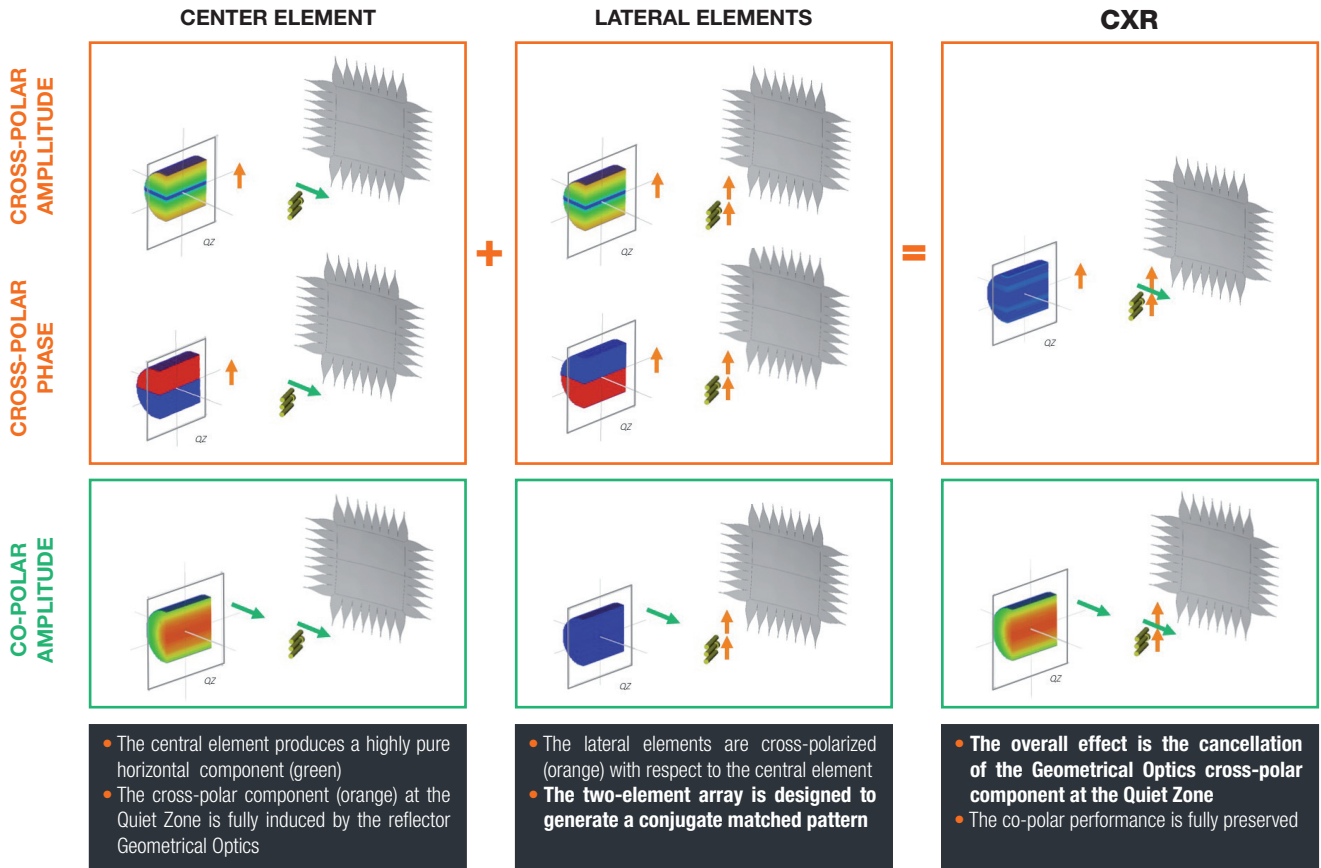
Equipment

- Mounting flange
- Integrated absorber panel
- Integrated polarization switch

Related services

- Calibration and maintenance
- Customization

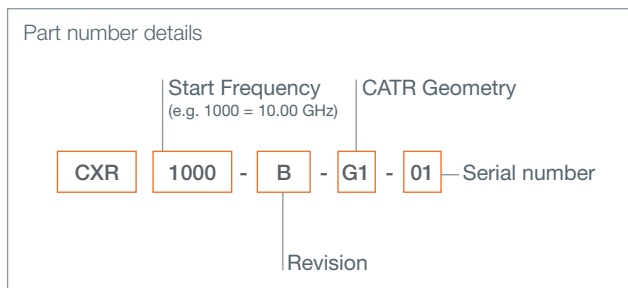
Included Optional



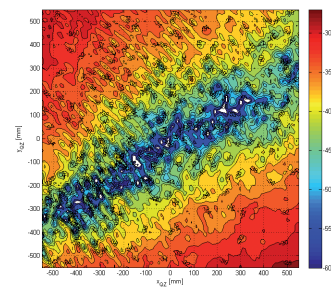
Electrical characteristics

Part number	See below
Frequency range	3.3-18.0 GHz
Ratio bandwidth	1.5 : 1 (nominal) 1.7 : 1 (extended)
Polarization	Dual linear
Directivity	11 dBi
HPBW	45 – 55°
Amplitude taper ⁽¹⁾	0.3 dB
VSWR	< 1.9
Return loss	< -10 dB
Port-to-port isolation	> 50 dB
Impedance	50 Ohms
RF connectors	3.5 mm Female

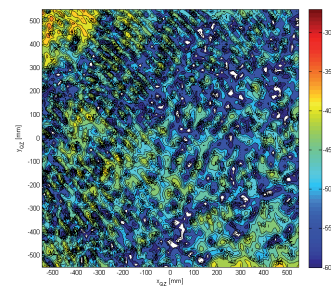
(1) Applies to the conical angle of +/- 8°, which illuminates the quiet zone of MVG compact ranges



Measurements @ 10.7 GHz of the normalized cross-polar component of the QZ of a single reflector, corner-fed CATR, considering two cases: single feed illumination (top); CXR illumination (bottom)



Measured cross polar distribution without conjugate-matched elements



Measured cross polar distribution with conjugate-matched elements



Contact your local sales representative for more information
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