



CATR Measurement System using Reflector

CATR (Compact Antenna Test Range)

- ✓ Using reflectors to collimate the plane wave, the **measurement distance required for general DFF (Direct Far Field) is reduced** for large aperture antennas.
- ✓ The surface roughness Ra of the metal curved surface is 50nm, and high plane wave characteristics are realized



Specification

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Frequency ※1		18 to 300GHz
Feeder Antenna		Corrugated feed Horn Antennas
Reflector		600mm x 600mm (Option: 1200mm x 1200mm)
Quiet Zone (QZ)		±150mm (1200mm x 1200mm Model: ±300mm)
Measurement Distance		1000mm (from the center of the reflector)
QZ Quality	Phase	±8.0deg.
	Amplitude	±1.0dB
Size ※2		W x D x H = 1800 x 1200 x 1800mm

※1 The frequency range depends on the feeder antenna

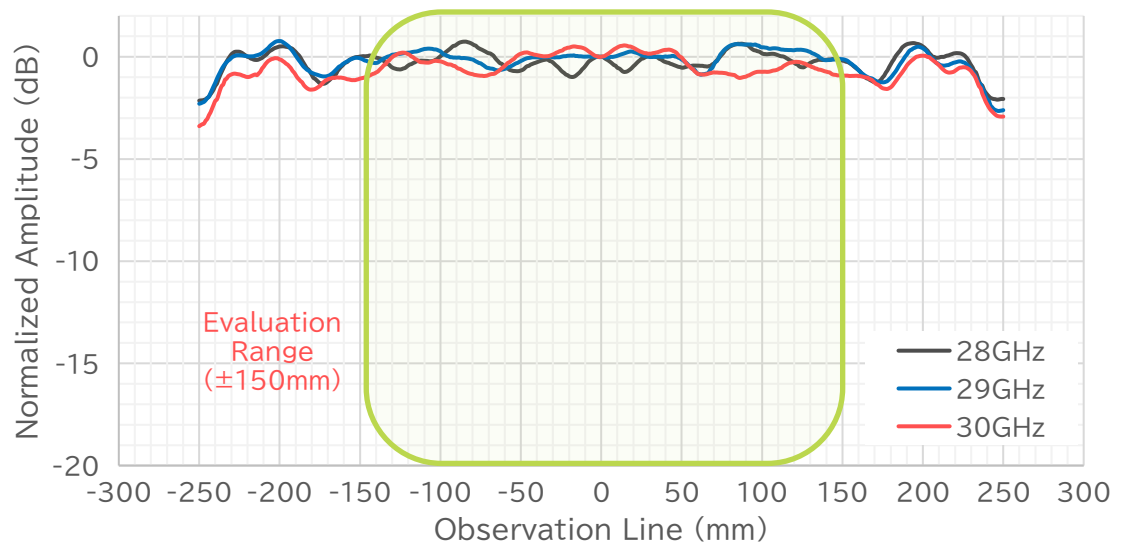
※2 Protrusions excluded. Size can be customized upon request



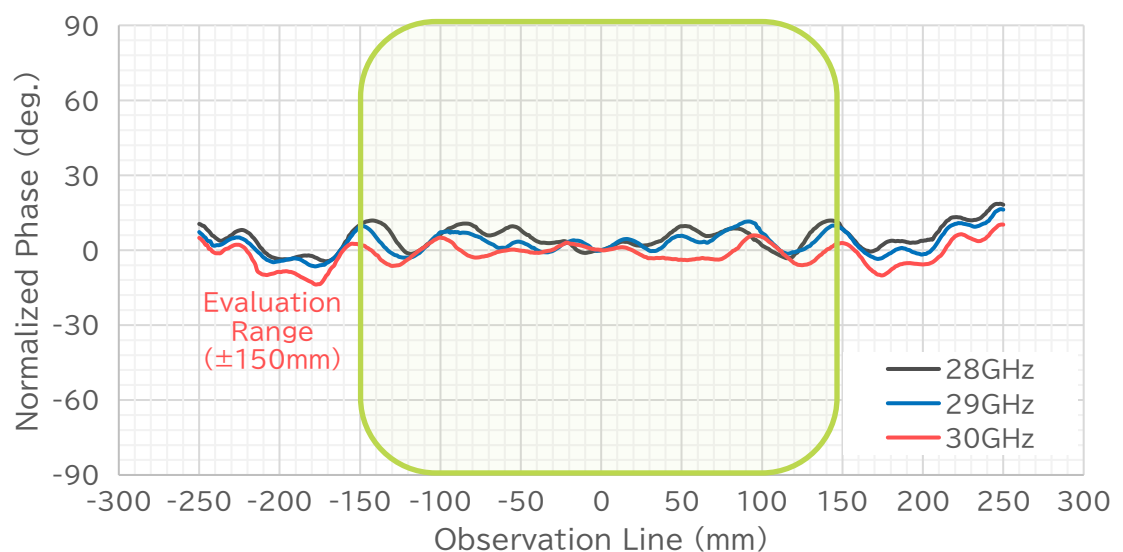
QZ Measurement Results (30GHz)

- ✓ The Pk-Pk value of the amplitude phase is measured as QZ Quality within a range of 1/2 of the aperture surface of the reflector (= $\pm 150\text{mm}$) ※3

	Ripple(Typ.)	
QZ Quality	Amplitude	Phase
28GHz	$\pm 0.86\text{dB}$	$\pm 7.54\text{deg.}$
29GHz	$\pm 0.75\text{dB}$	$\pm 7.24\text{deg.}$
30GHz	$\pm 0.81\text{dB}$	$\pm 6.10\text{deg.}$



Amplitude Characteristics



Phase Characteristics

※3 Please contact us for information on other frequency



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About Cornes RF Engineering

Microwave Factory Company (MWF) and E&C Engineering (ECE) are divisions of Cornes Technologies Limited headquartered in Tokyo, Japan. Together they make up Cornes RF Engineering (CRFE).

CRFE is committed to providing the industry with ADAS (radar, LiDAR, camera sensor), ESD, and antenna test system components (positioners, RF absorbing material, automated software and chambers) at price points that enable their broad utilization.

Cornes Technologies USA is the US distributor of CRFE, Microwave Factory and E&C Engineering products.

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