

BROADBAND DUAL-RIDGE HORN ANTENNA

700 MHz TO 18 GHz

DRHA700

KEY FEATURES

- Ultra-wideband – 700 MHz to 18 GHz in a single aperture
- Ultra-compact & lightweight for the band (150 mm tall, ~0.5 kg)
- Well matched across the operating band with gain up to 17 dBi
- Stable, well-behaved beam across the entire band
- Lightweight, rugged one-piece build through metal 3D printing
- Professionally designed and hand-tested by engineers in the United States

DESIGN SPECIFICATIONS

- Design: Dual-ridge horn
- Operating Frequency: 700 MHz to 18 GHz
- Polarization: Linear (horizontal/vertical based on orientation)
- Connector: SMA female (stainless steel)
- Construction: Additive-manufactured aluminum alloy
- Mounting: #1/4-20 screw hole (see diagram on page 6)
- Length: 4.4 in [111 mm]
- Width: 5.1 in [130 mm]
- Height: 5.9 in [150 mm]
- Weight: 17.5 oz [495 g]



DRHA700

PERFORMANCE SPECIFICATIONS

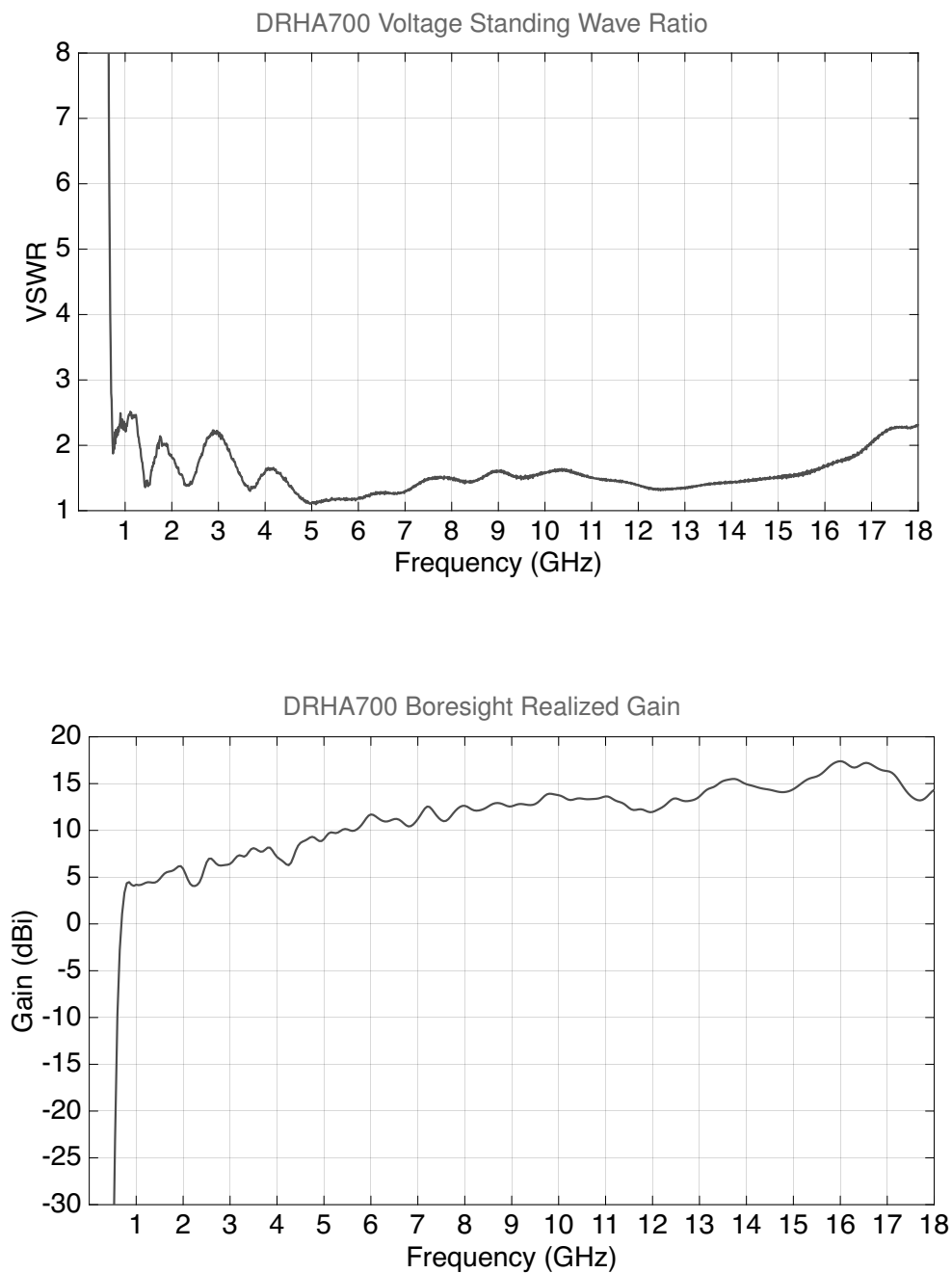
Parameter		Frequency	Min.	Typ.	Max.	Unit
VSWR		700 MHz – 1.0 GHz	1.5	2.3	3.5	–
		1.0 GHz – 4.0 GHz	1.2	1.8	3.0	
		4.0 GHz – 15.0 GHz	1.1	1.5	2.0	
		15.0 GHz – 18 GHz	1.2	1.9	3.0	
Gain (Realized, Boresight)		700 MHz – 1.0 GHz	0.0	3.5	5.5	dBi
		1.0 GHz – 4.0 GHz	2.5	6.5	9.5	
		4.0 GHz – 9.0 GHz	5.0	10.0	14.0	
		9.0 GHz – 18 GHz	10.0	14.0	18.0	
HPBW	E-Plane	700 MHz – 4.0 GHz	35	80	165	deg.
		4.0 GHz – 18 GHz	15	40	85	
	H-Plane	700 MHz – 4.0 GHz	50	80	170	
		4.0 GHz – 18 GHz	10	35	70	
Cross-Polarization (XPD, Boresight)		700 MHz – 1.0 GHz	10	20	30	dB
		1.0 GHz – 18 GHz	15	30	55	
Input Power (CW)		700 MHz – 18 GHz	–	–	25	W
Impedance		–	50			Ω
Connector		–	SMA (female)			–

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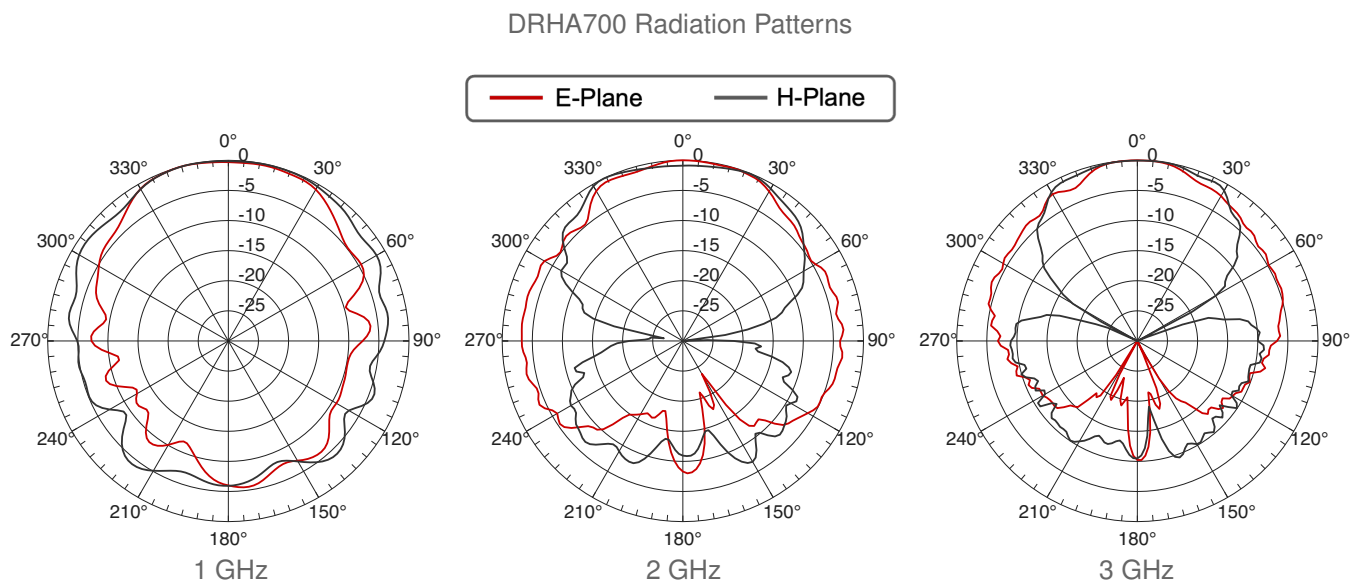
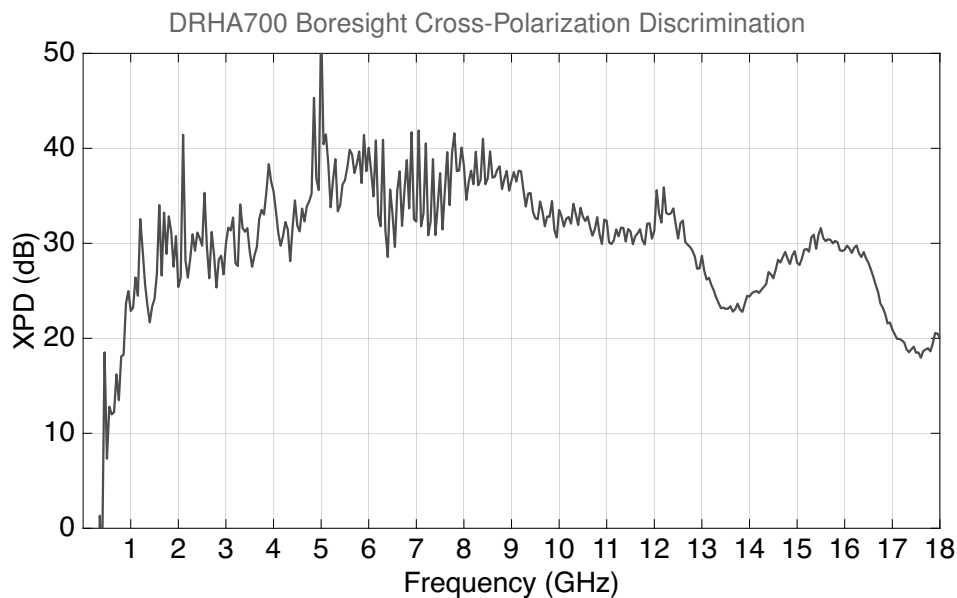
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TYPICAL PERFORMANCE



TYPICAL PERFORMANCE (CONT.)

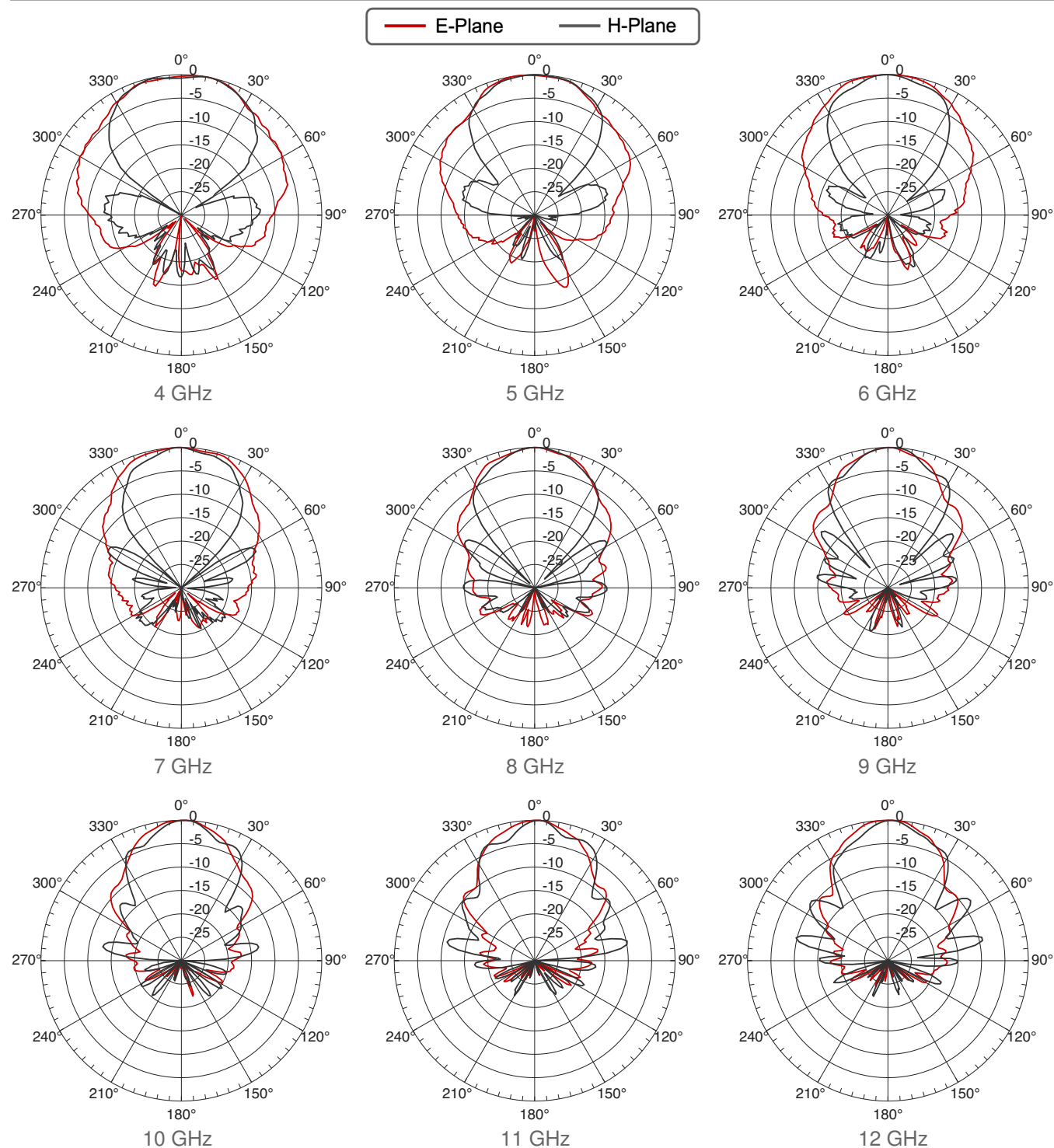


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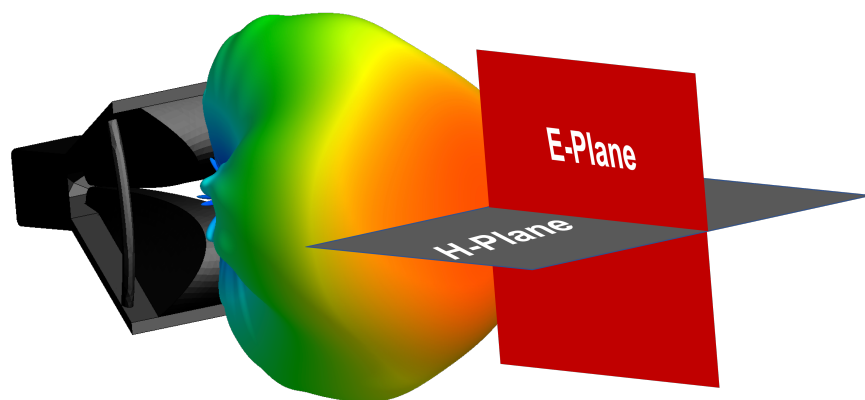
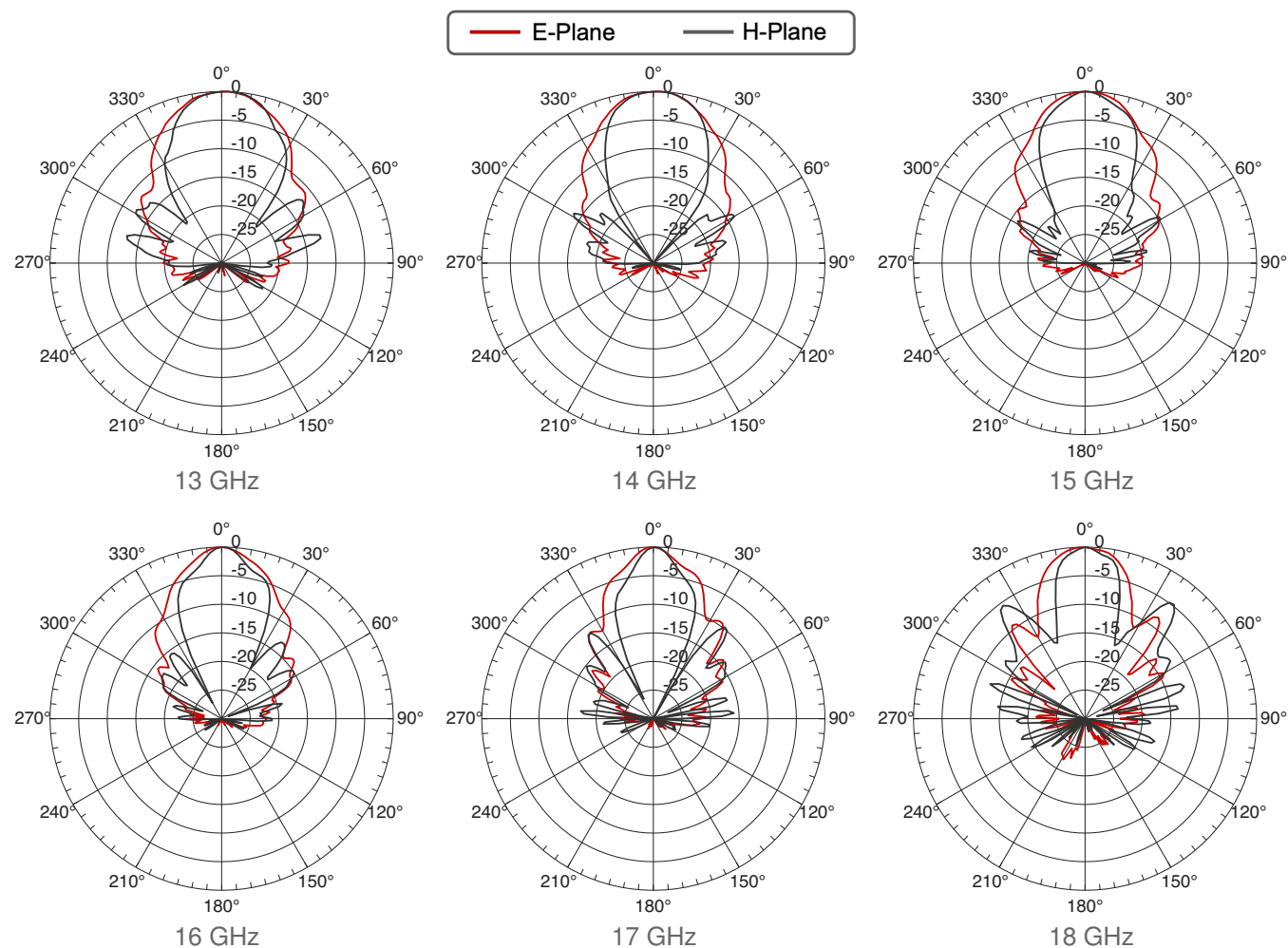
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TYPICAL PERFORMANCE (CONT.)



TYPICAL PERFORMANCE (CONT.)

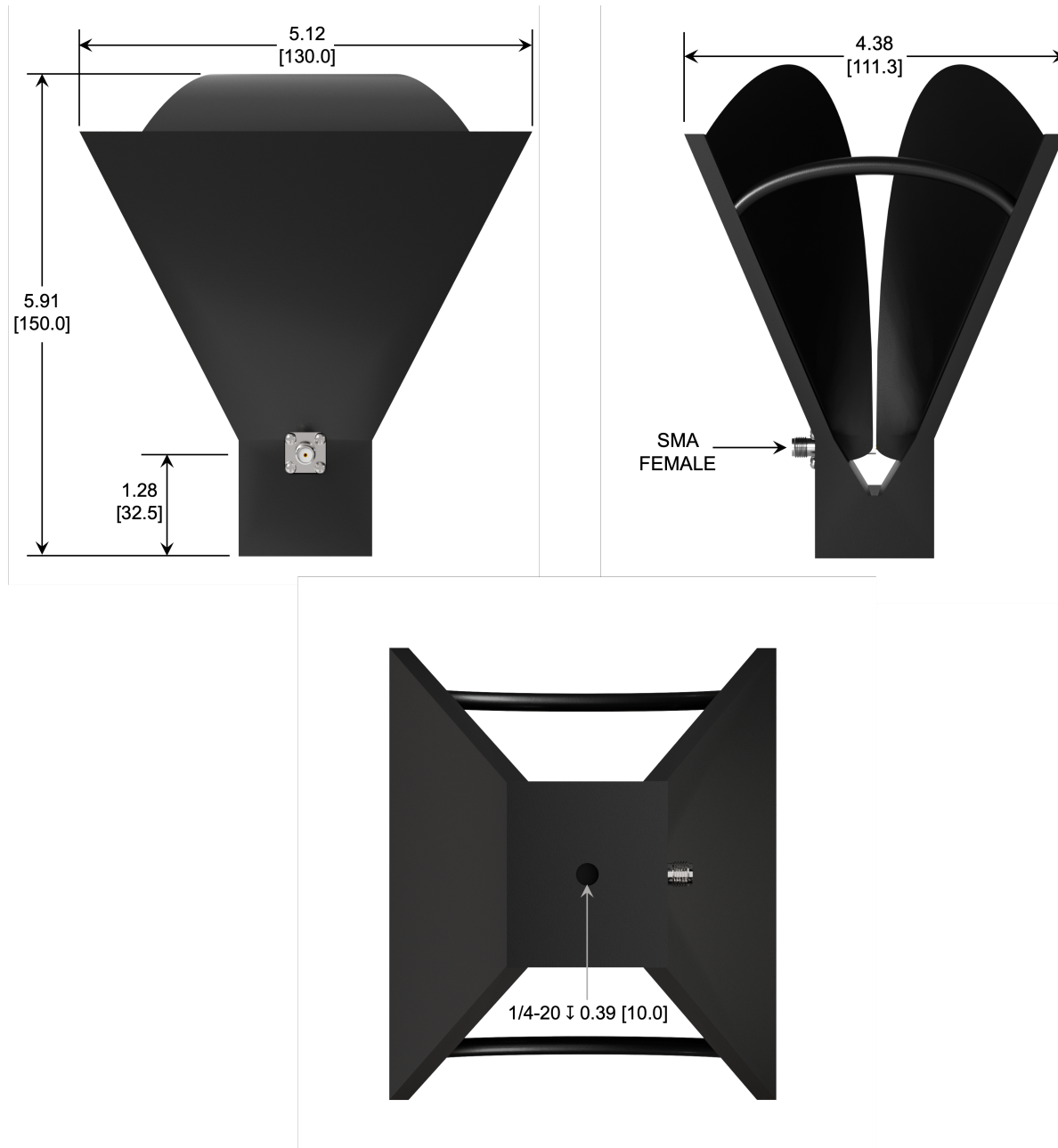


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CAD DRAWING



NOTES:

1. UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS ARE NOMINAL
2. DIMENSIONS ARE IN INCHES [mm]
3. ALL SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE AT ANY TIME