

# EMC Dual-Ridge Horn

EH1840 (18 – 40 GHz)



## SOLUTION FOR

Radiated emissions testing according to

- FCC
- MIL-STD-461
- SAE ARP 958

## Main features

### Technical performance

- Single linear polarization
- Smooth / balanced gain with frequency
- Low return loss / VSWR

### Design

- Unique design preventing the excitation of unwanted high order modes in the aperture
- Well defined smooth radiation pattern throughout the operational bandwidth
- Stiff / robust and lightweight mechanical design
- Precision machined
- High reliability 2.92 mm coaxial connector

## Product configuration

### Equipment

- Storage box
- Standard axial mounting interface
- Custom mounting interface
- Antenna tripod

### Services

- Calibration
- Maintenance

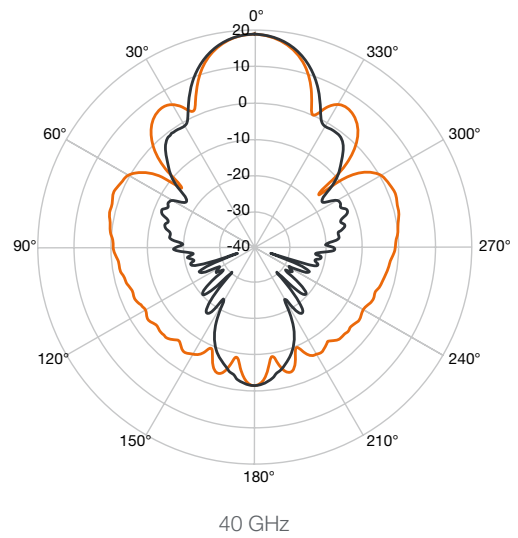
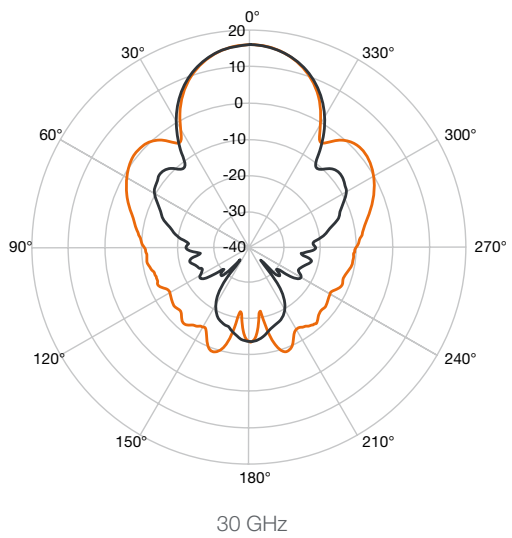
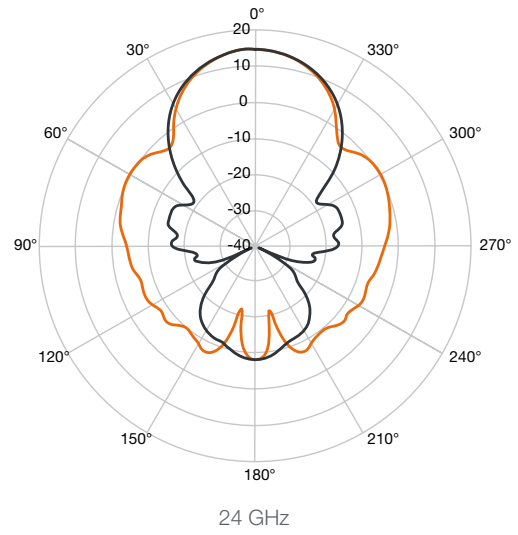
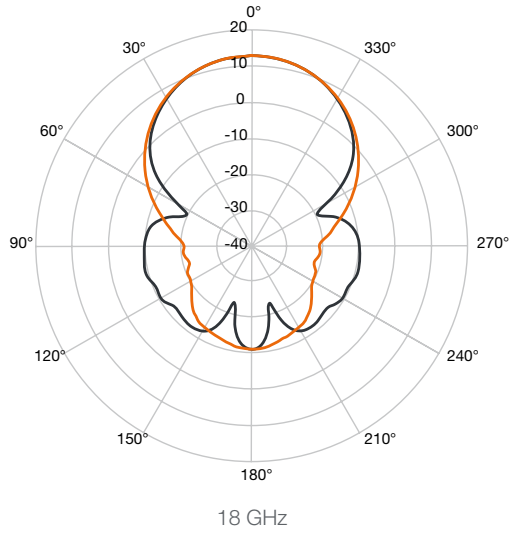
### Delivered documents

- Technical description document
- Calibration certificate

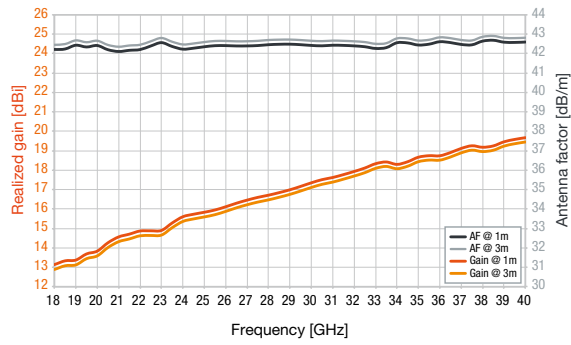
Included  Optional

Far-field radiation pattern

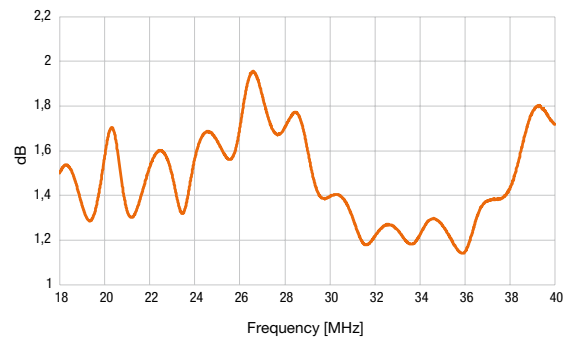
— E-plane — H-plane



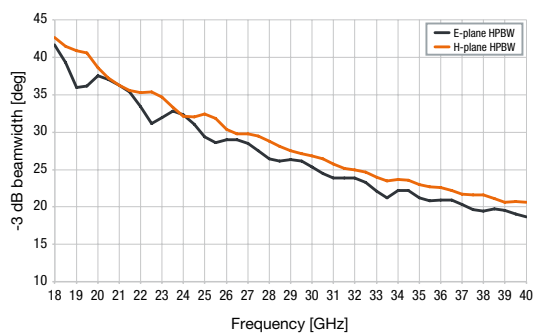
Gain / Antenna factor



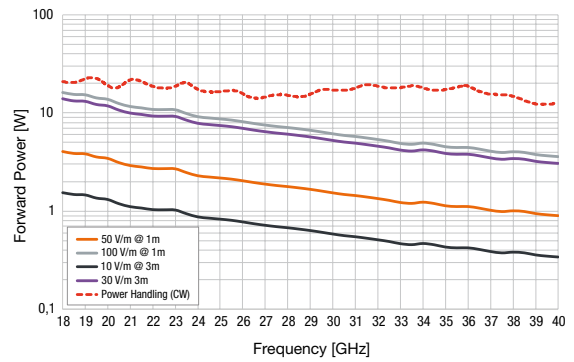
VSWR



-3 dB beamwidth



Power handling (CW) / Forward power



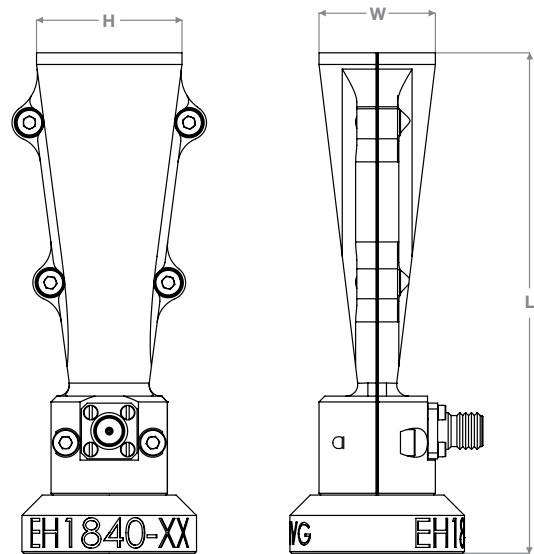
### Electrical characteristics

Type of antenna	EMC Dual-Ridge Horn
Frequency range	18 – 40 GHz
Realized gain	13 – 19 dBi
Antenna factor	42 – 43 dB/m
E-plane HPBW (2x)	18 – 42 deg
H-plane HPBW (2x)	20 – 41 deg
VSWR	1.1 to 1.9 (average 1.4) : 1
Polarization	Single linear
Impedance	50 Ohms
Power handling (CW)	15 W average

### Mechanical characteristics

Dimensions (H x W x L)	2.5 x 2 x 8.6 cm
Weight (approx.)	0.5 Kg
Material	Aluminum
Surface treatment	Surtec 650®
Coatings	Polyurethane paint
RF connector	2.92 mm Female – Southwest 1012-16SF®

Dimensional drawing



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