EM-7103 | Antenna, Standard Gain Horn, Passive, Directional

Specifications

Electrical

Frequency Range: 18GHz – 26.5GHz

Polarization: Linear, Vertical

VSWR: >1.3:1 Typical

3dB Beamwidth: 24° - 11° Typical Azimuth

27° - 16° Typical Elevation

Impedance: 50Ω, Nominal

Gain: 15-18dBi Nominal

Connector: SMA (**EM-7103** | 18GHz-26.5GHz)

Waveguide: WR42

Mechanical

Dimensions:

Length: 7.7cm (3.03 in.)

Width: 5.2cm (2.05 in.)

Height: 3.2cm (1.26 in.)

Weight: 60g (0.13 lbs.)

Mounting Options Available:

EM-7103 ¼ - 20 Vertical/Horizontal mount

EM-7103A WR-42 Coax-to-Waveguide Adapter

**EM-7103B** WR-42 15-20dBi Gain Horn Flare

Color Options:

- Black (default)
- Custom colors available upon request

Description

The EM-7103 Standard Gain Horn is a WR-42 waveguide based K band antenna featuring high gain and stable beamwidth across its frequency range.

The EM-7103 is based on the standard WR-42 waveguide and features a detachable UG595/U flange mount which allows for the horn flare and coax-to-waveguide adapter to be used separately.

Each EM-7103 comes standard with NIST Traceable 1m gain and antenna factor calibration data.

Specifications subject to change without notice, unless otherwise specified. Product is manufactured in Johnstown, NY, U.S.A.

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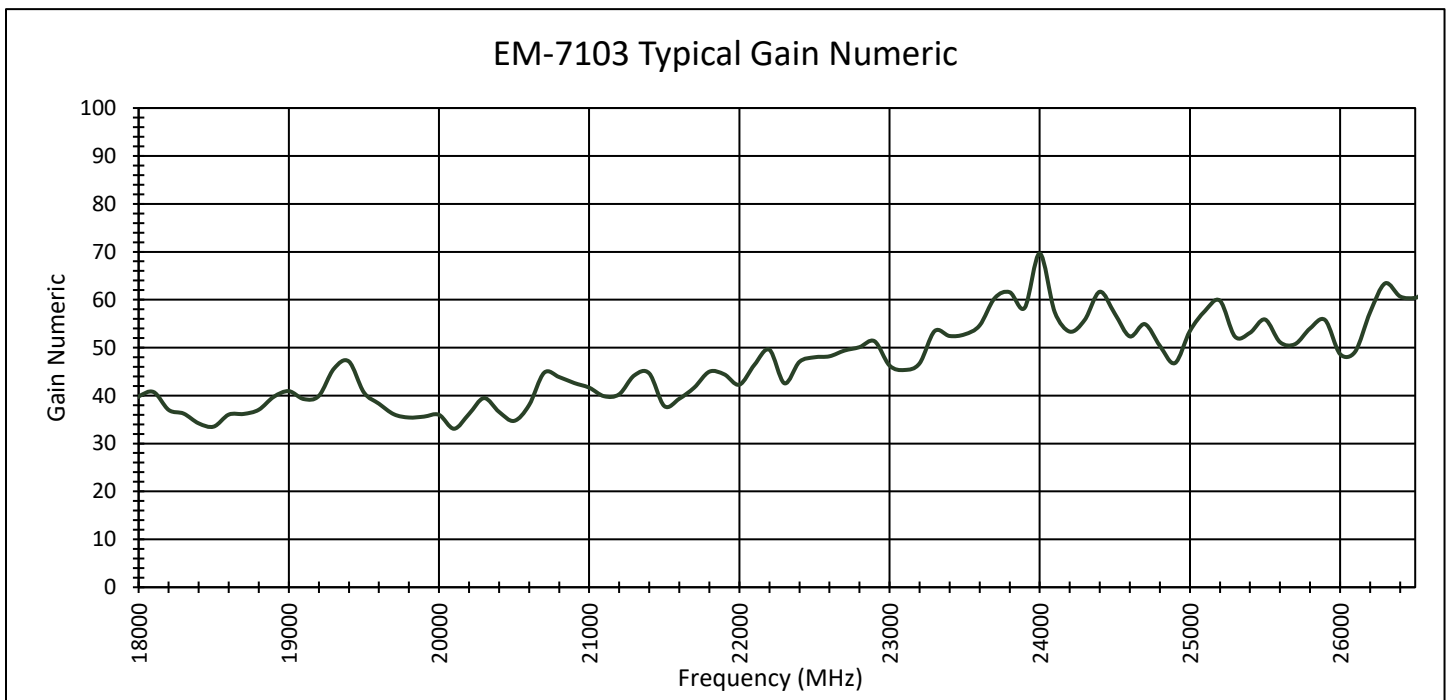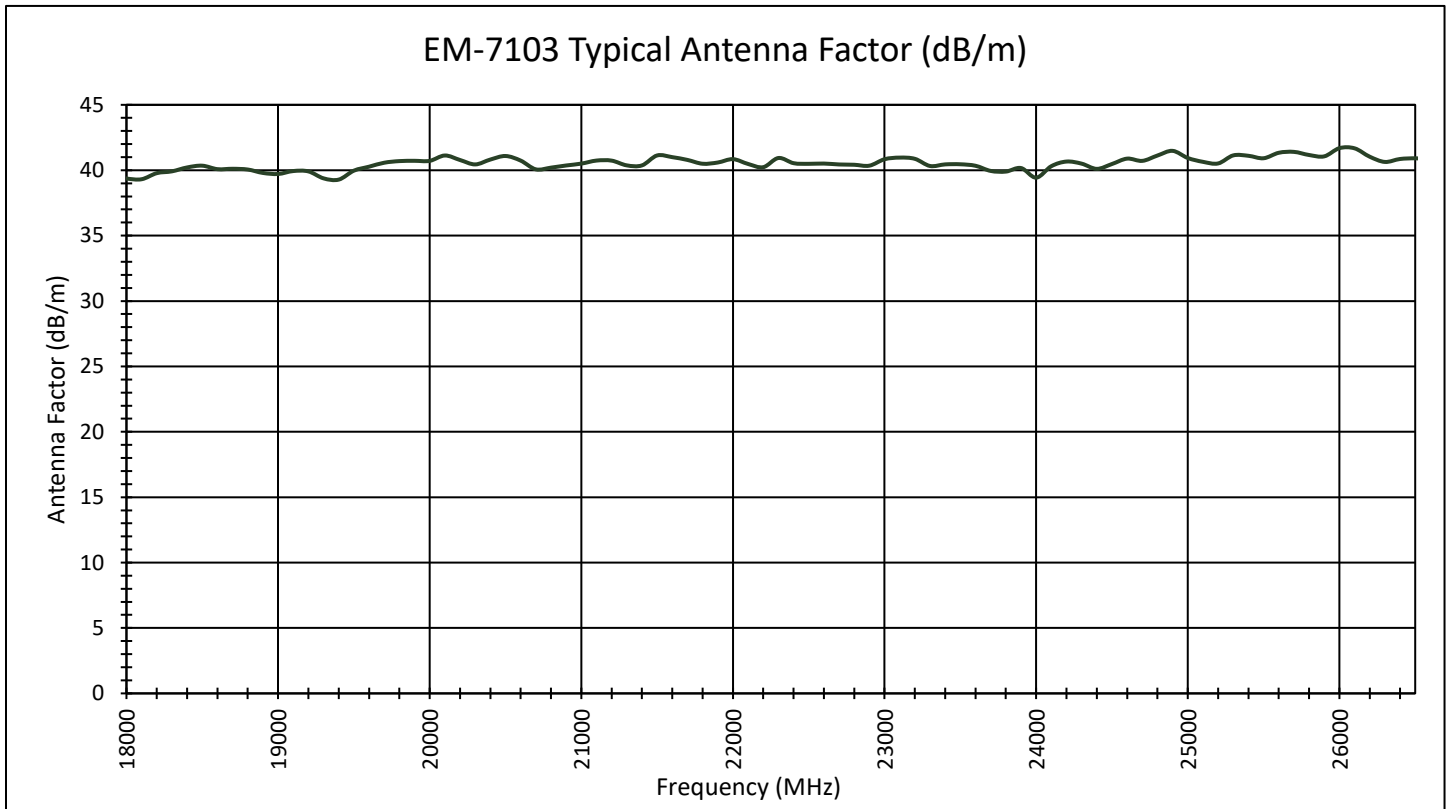## EM-7103 Typical VSWR

EM-7103 Typical Max* Gain (dBi)
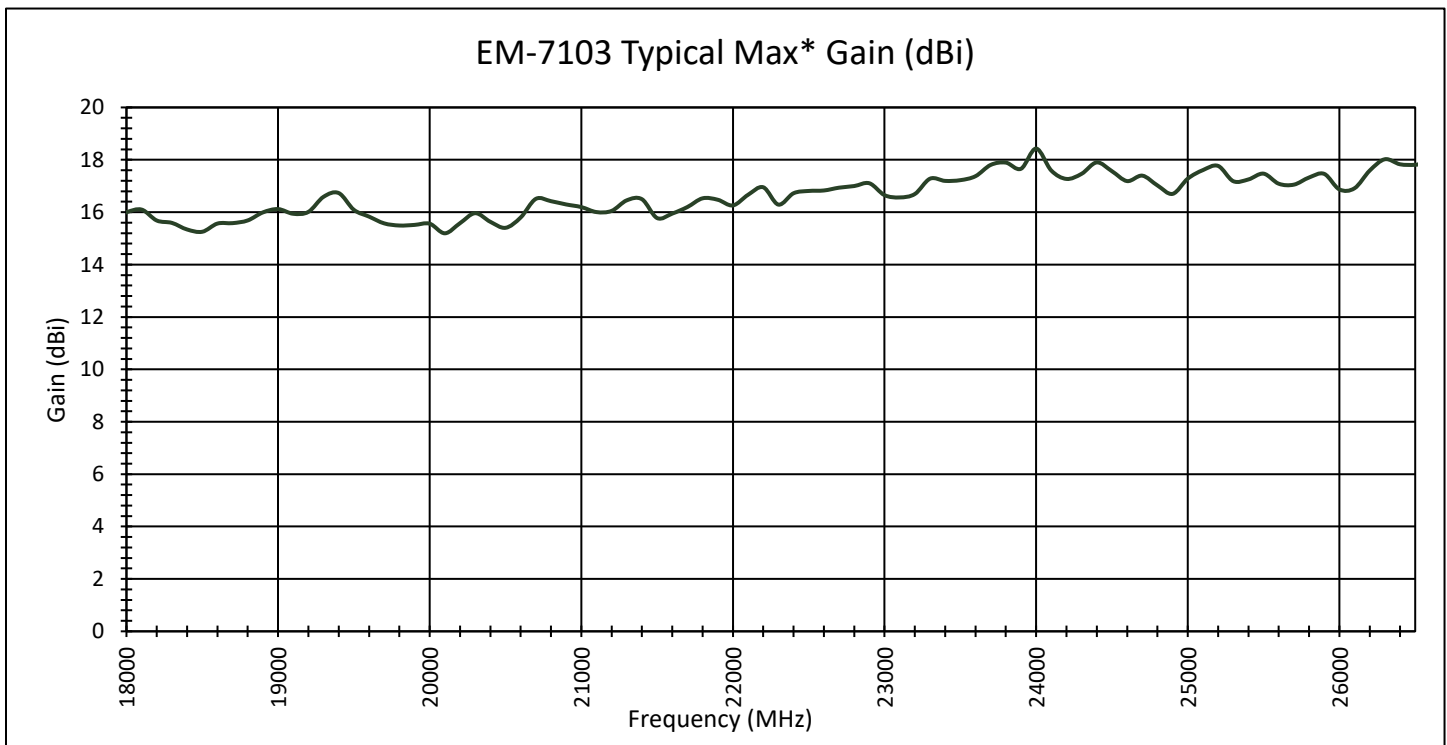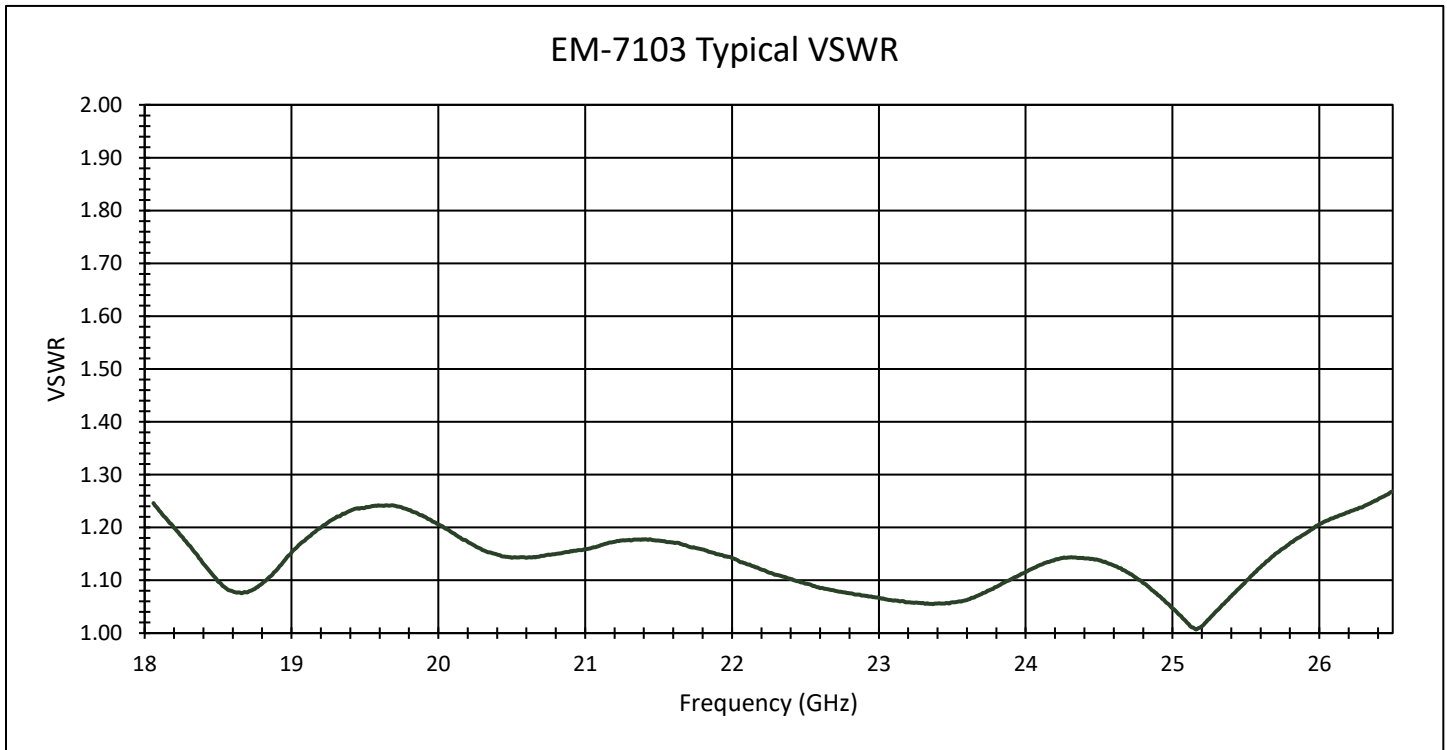
*Maximum Gain determined from scans at all radiation angles and elevations. Data shown is typical, not guaranteed.

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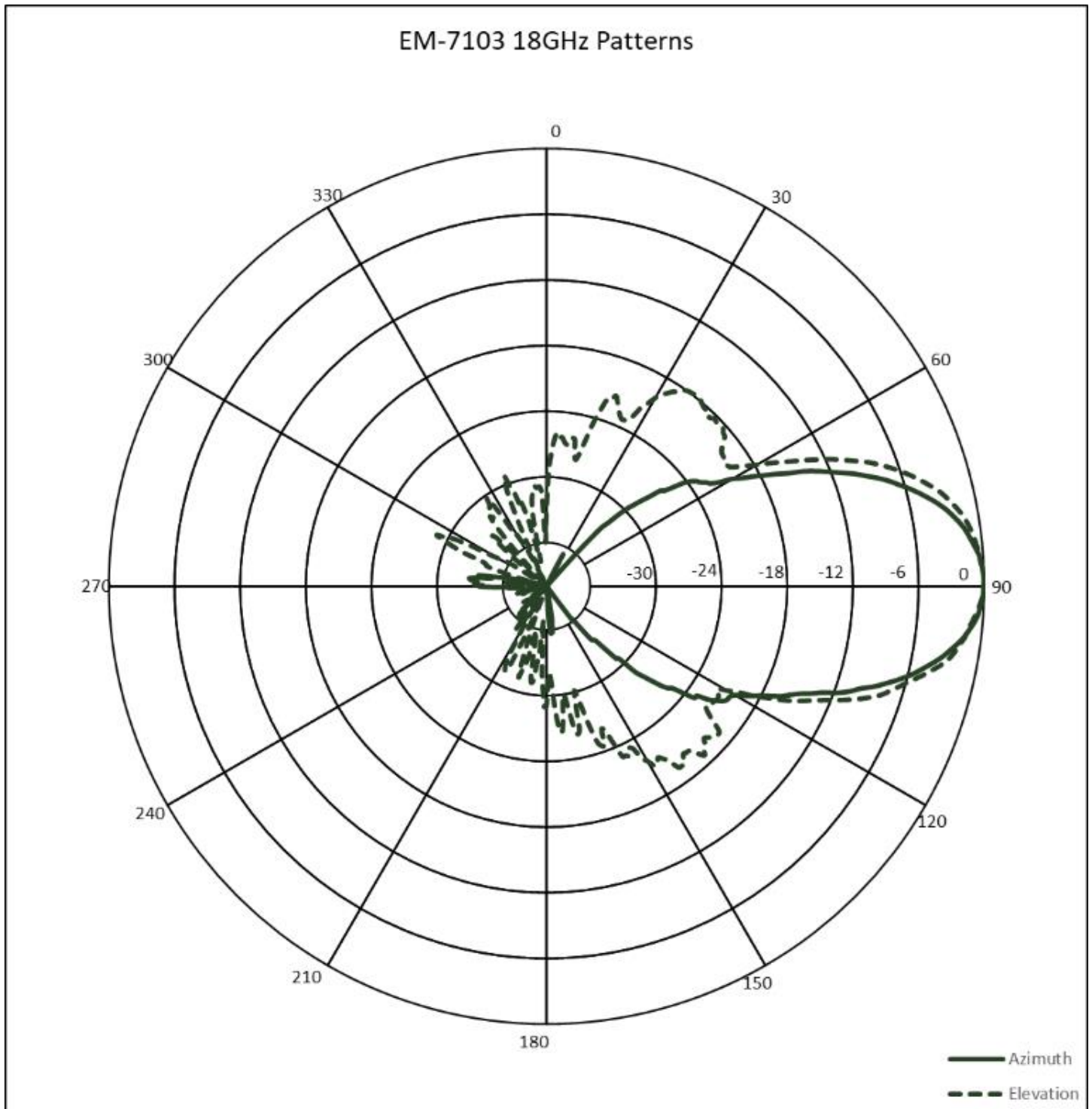EM-7103 Typical Antenna Factor (dB/m)

EM-7103 Typical Gain Numeric

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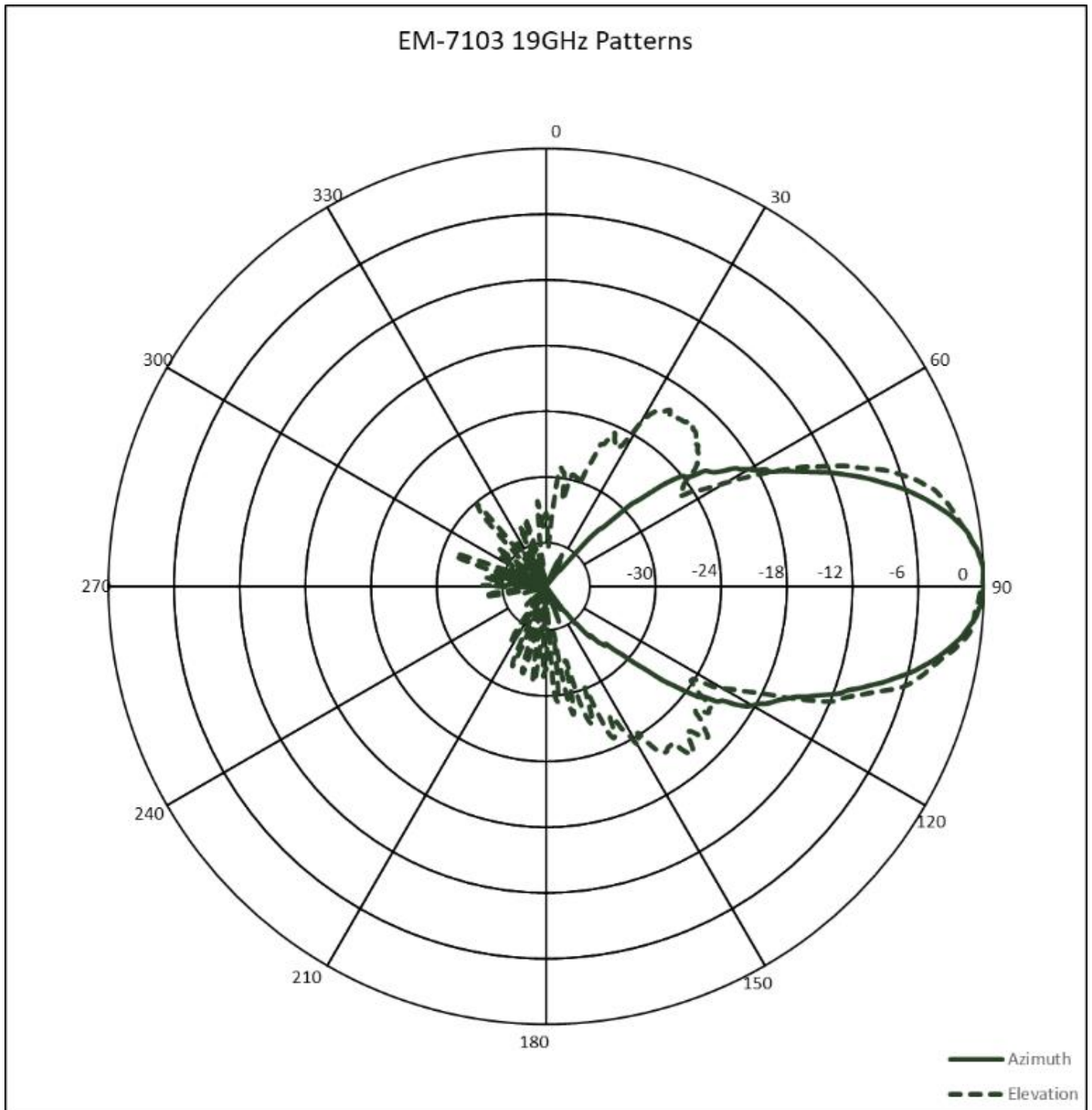

EM-7103 18GHz Patterns

Scale: 6dB/Division.

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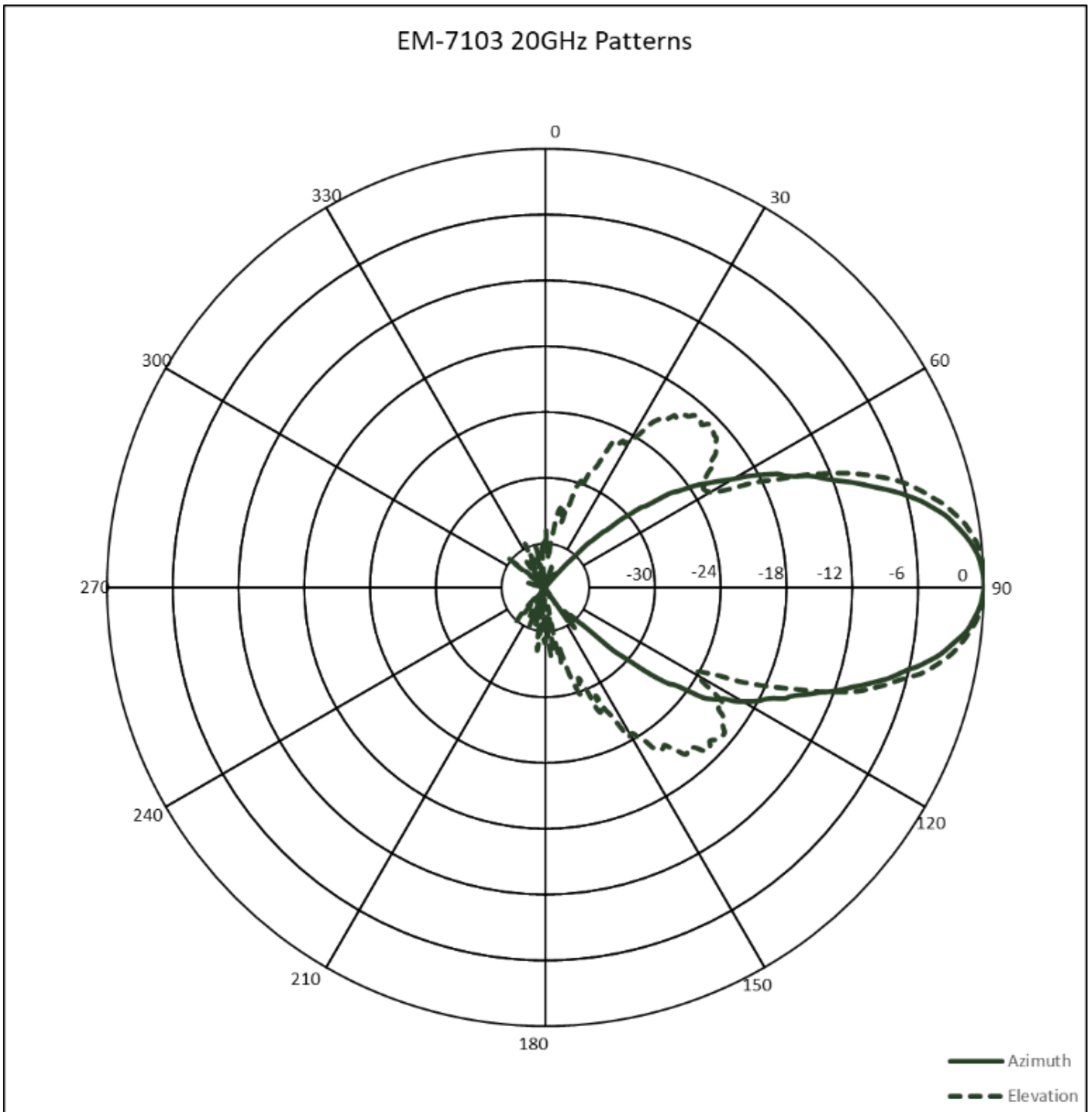

EM-7103 19GHz Patterns

Scale: 6dB/Division.

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EM-7103 | Antenna, Standard Gain Horn, Passive, Directional
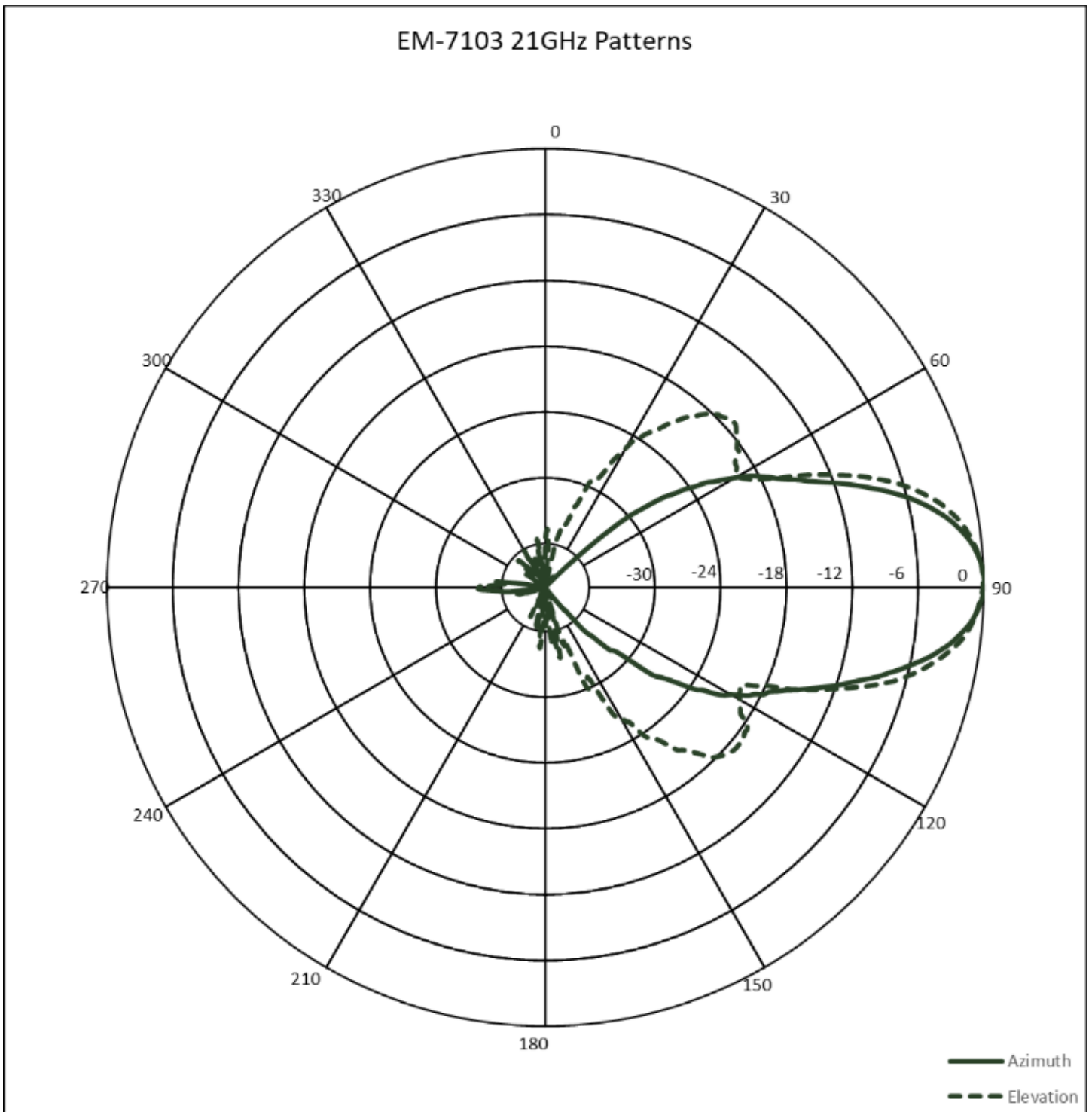

EM-7103 20GHz Patterns

Azimuth
Elevation

Scale: 6dB/Division.

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EM-7103 | Antenna, Standard Gain Horn, Passive, Directional
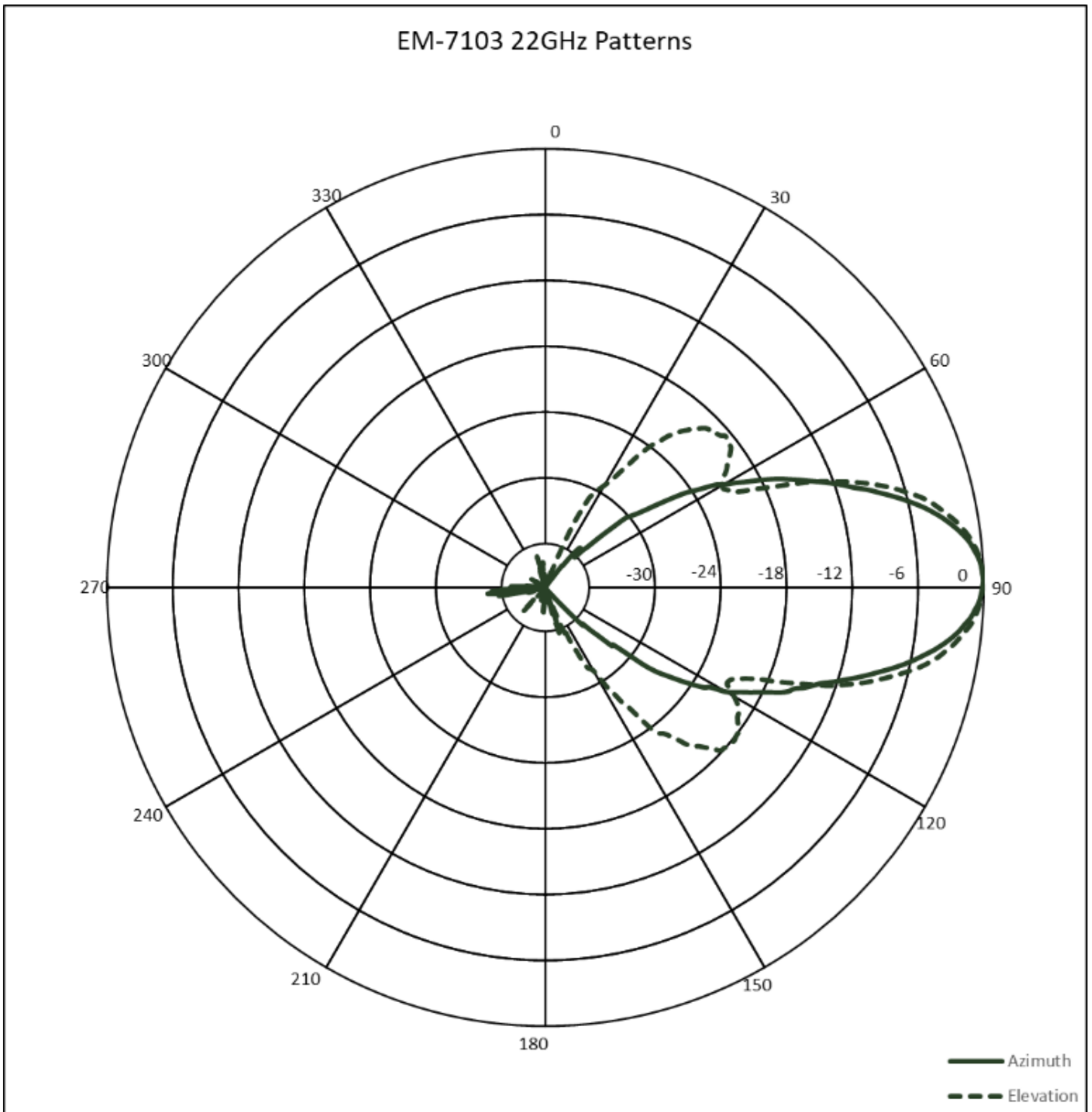

EM-7103 21GHz Patterns

Azimuth
Elevation

Scale: 6dB/Division.

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EM-7103 | Antenna, Standard Gain Horn, Passive, Directional

EM-7103 22GHz Patterns
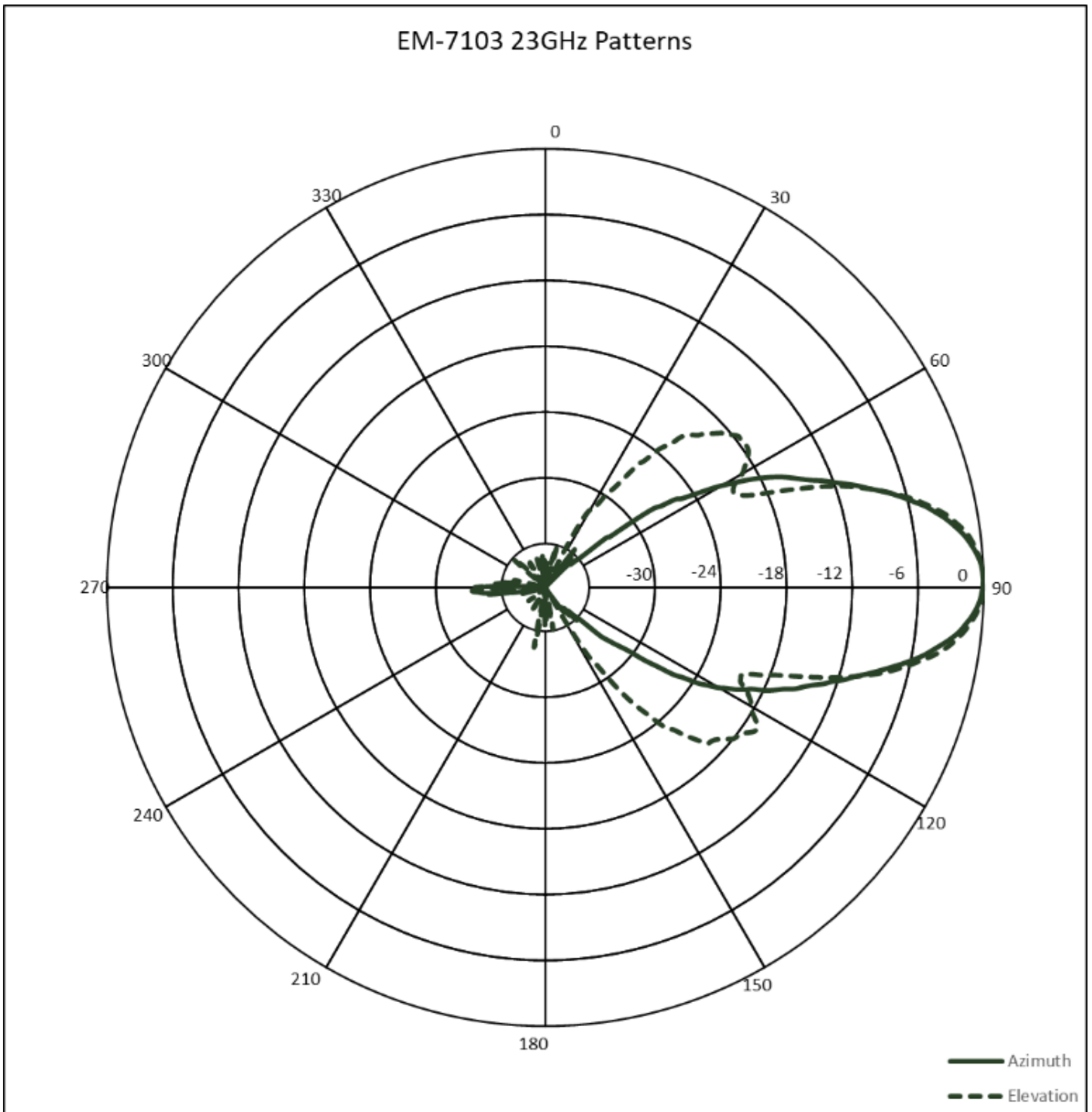
Azimuth

Elevation

Scale: 6dB/Division.

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EM-7103 | Antenna, Standard Gain Horn, Passive, Directional

EM-7103 23GHz Patterns
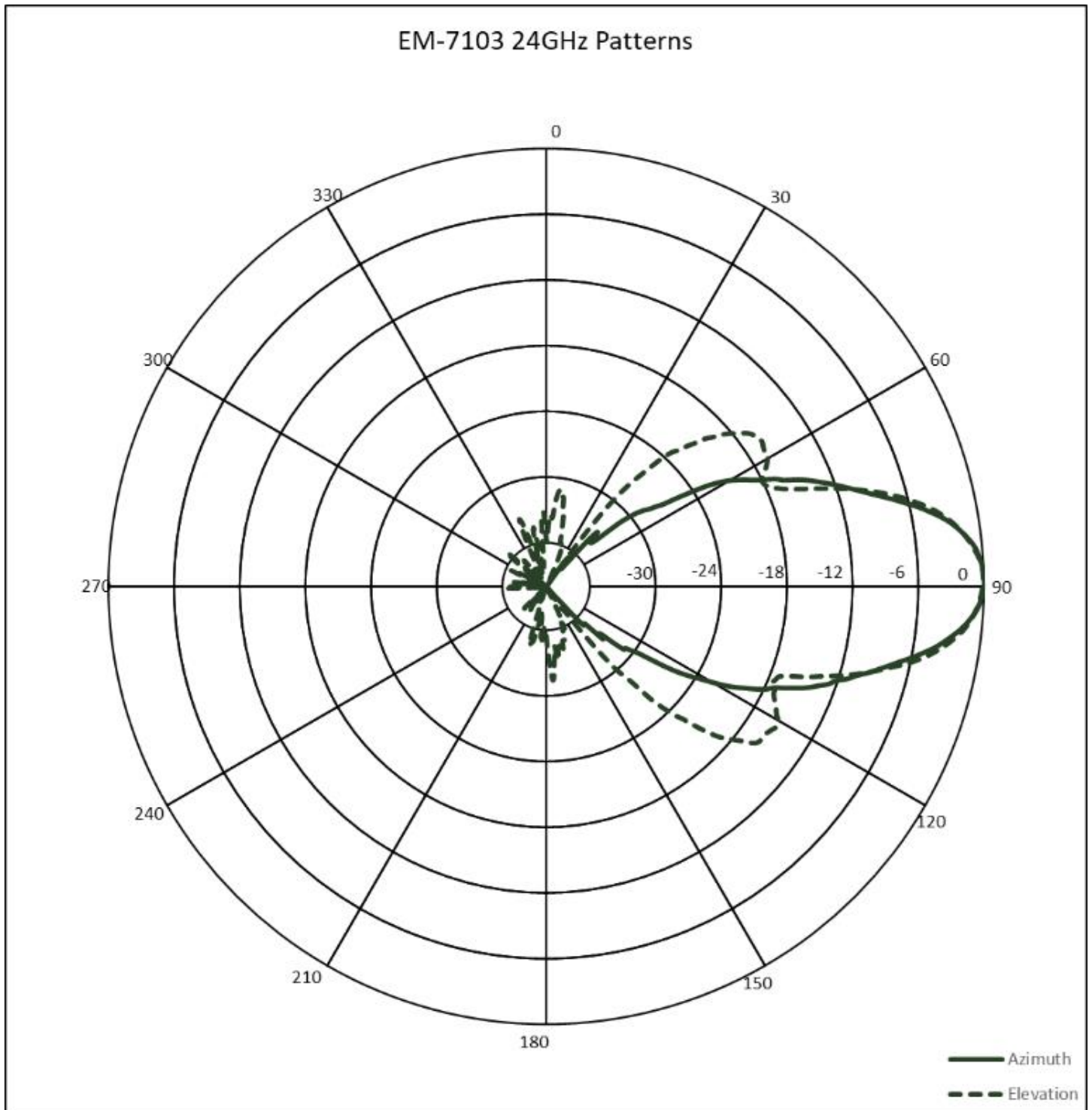

Legend:
— Azimuth
- - - Elevation

Scale: 6dB/Division.

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EM-7103 | Antenna, Standard Gain Horn, Passive, Directional
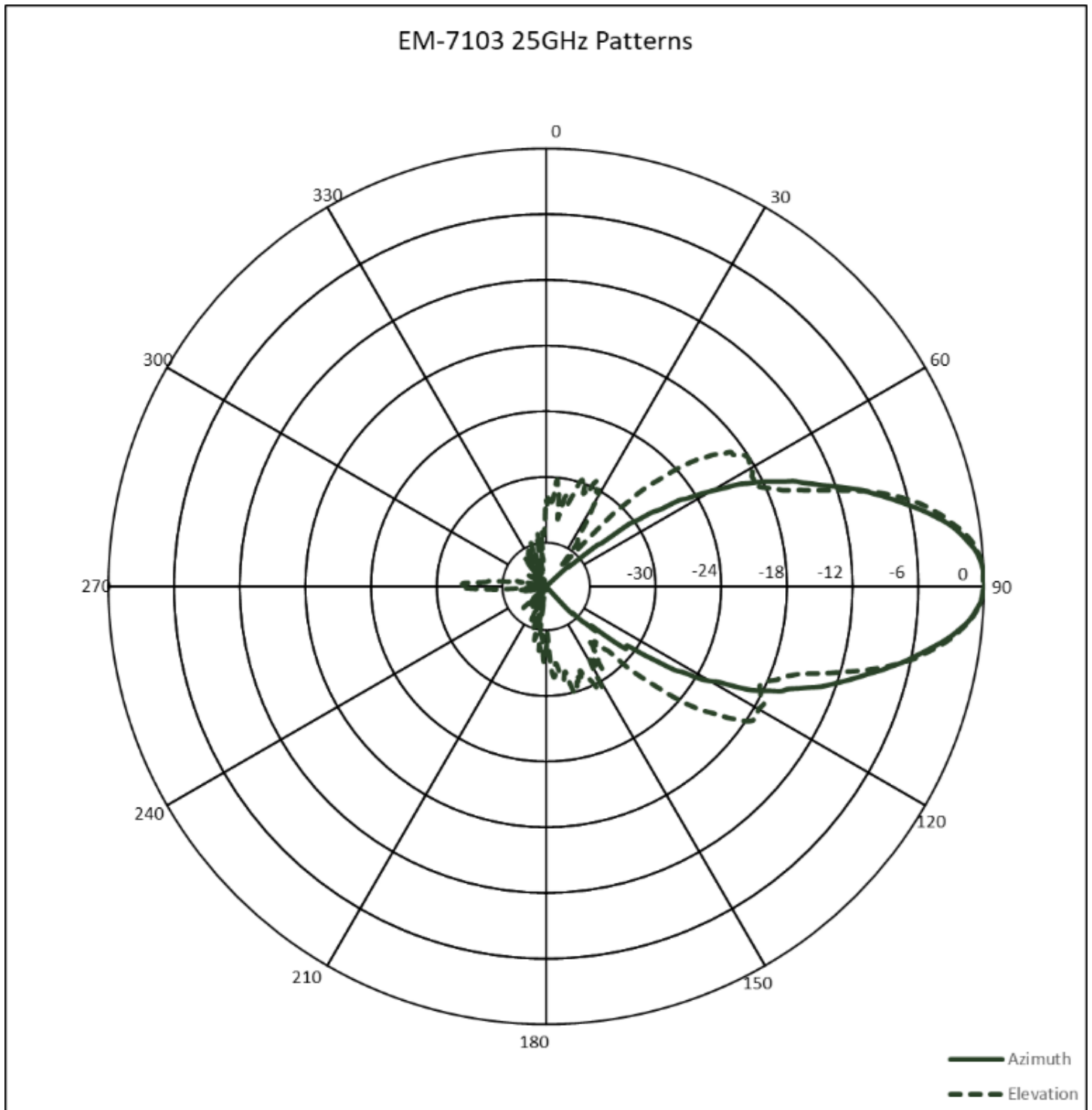

EM-7103 24GHz Patterns

Azimuth
Elevation

Scale: 6dB/Division.

Data shown is typical, not guaranteed.

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EM-7103 | Antenna, Standard Gain Horn, Passive, Directional
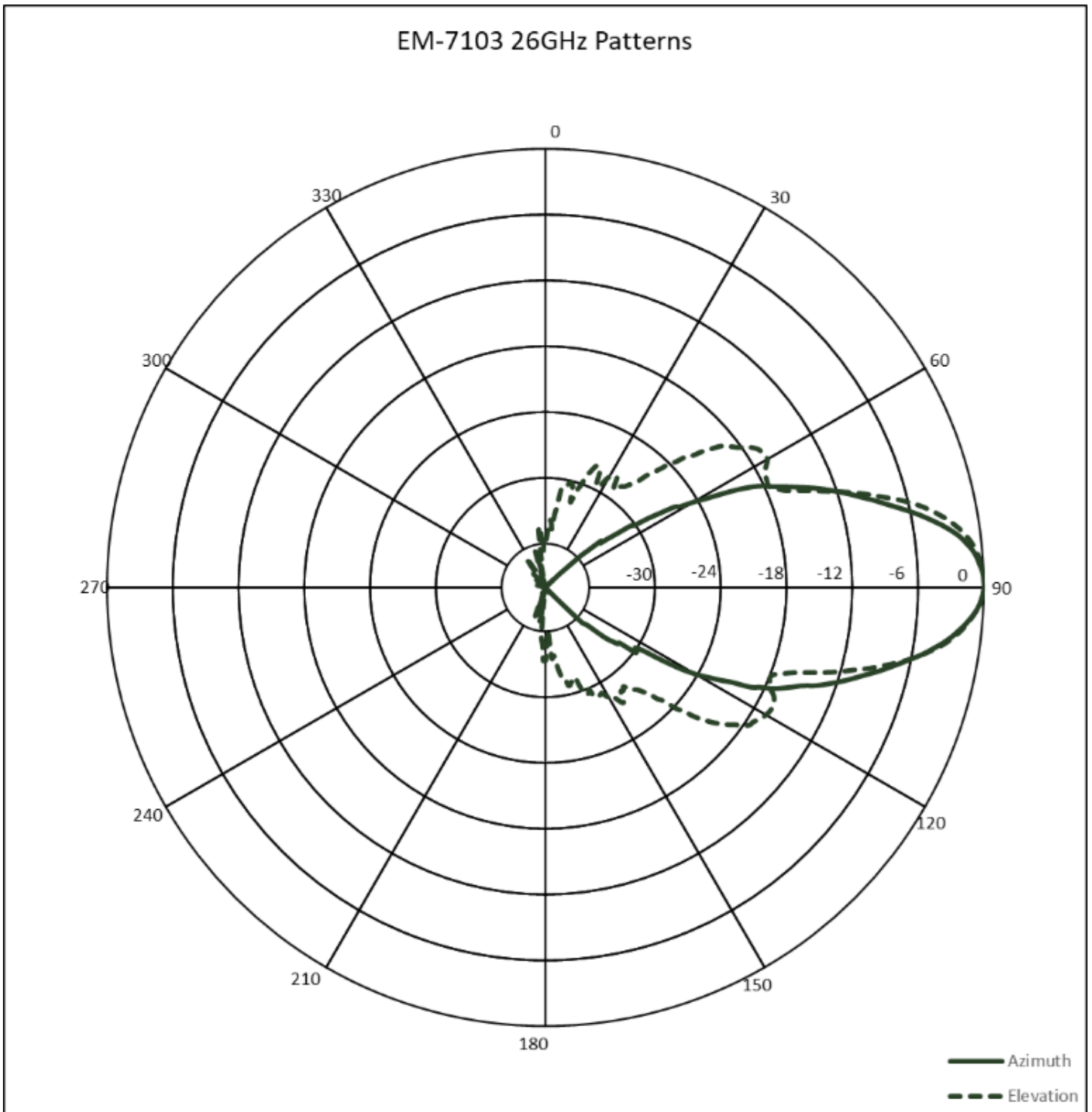
EM-7103 25GHz Patterns

Azimuth
Elevation

Scale: 6dB/Division.

Data shown is typical, not guaranteed.

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EM-7103 | Antenna, Standard Gain Horn, Passive, Directional

EM-7103 26GHz Patterns

— Azimuth
- - - Elevation

Scale: 6dB/Division.

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