

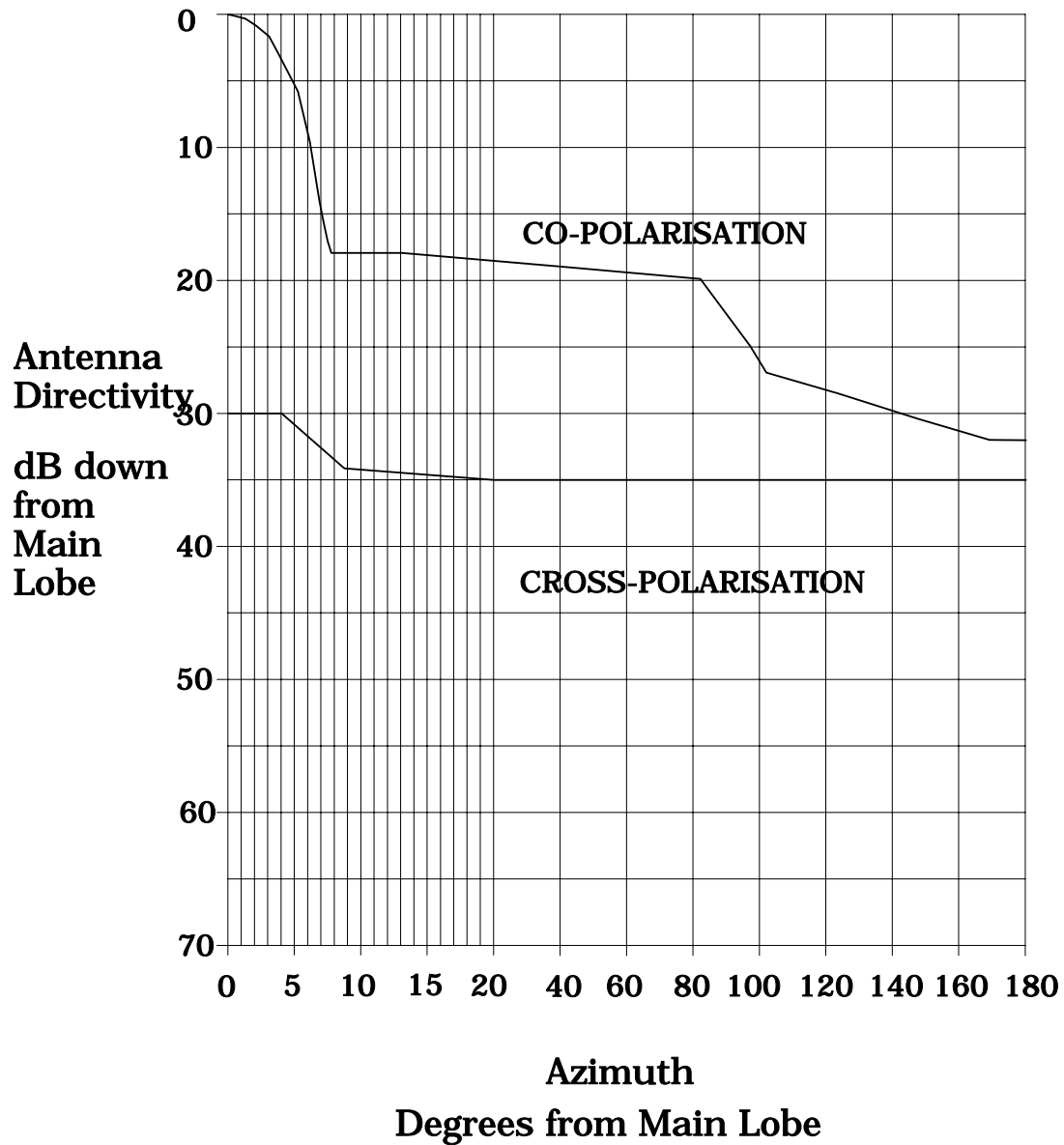
ANNEX A TO APPENDIX 10: Notional Antenna Radiation Pattern Envelopes

This annex consolidates the notional antenna radiation pattern envelopes for fixed microwave point-to-point bands.

THE 1.5 GHz BAND (1427-1535 MHz)

NOTIONAL ANTENNA RADIATION PATTERN ENVELOPE

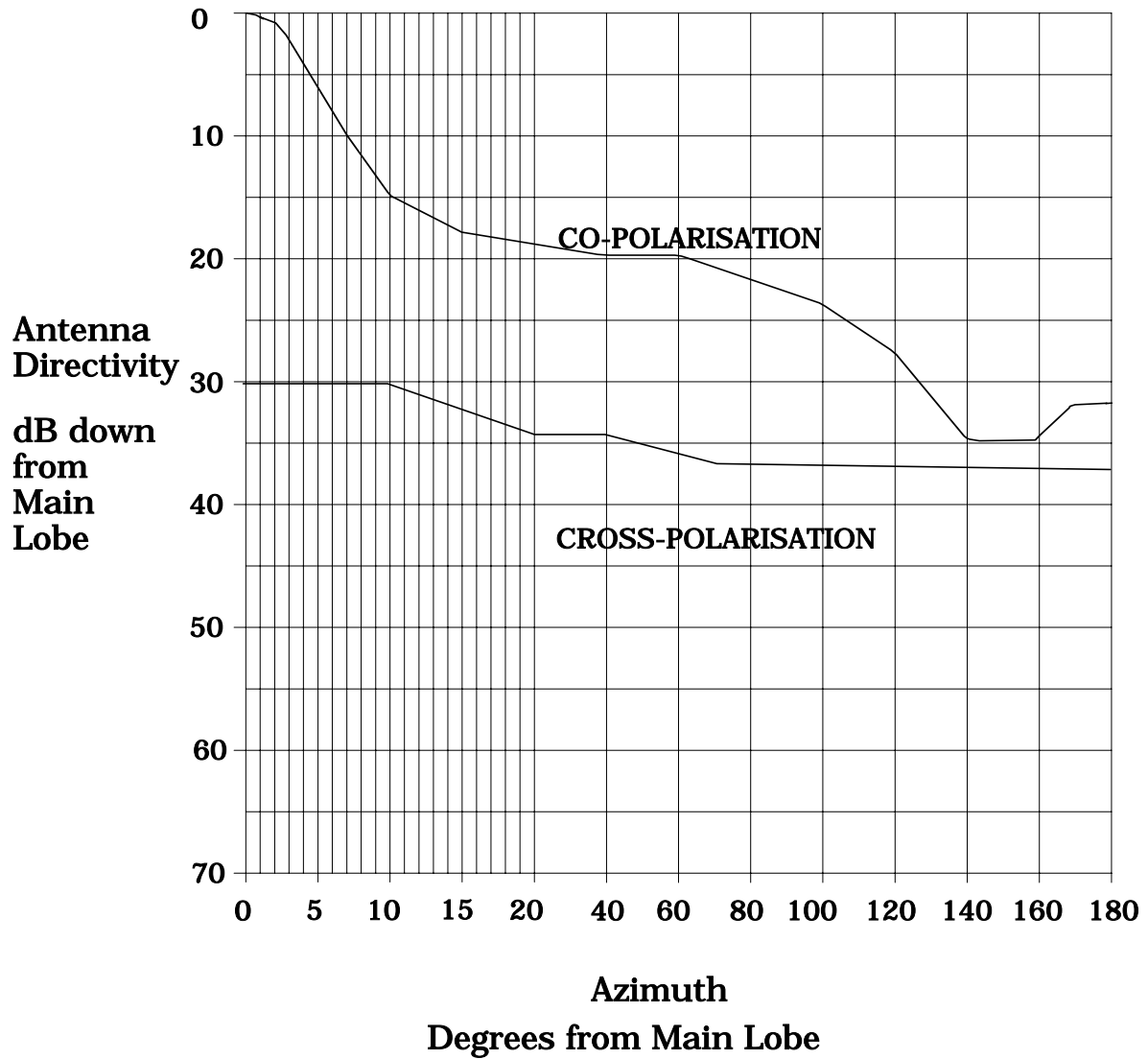
Diameter	1.8 m (grid parabolic dish)
Notional Half Power Beam Width	8 degrees
Notional On-axis Gain	26 dBi



THE 1.8 GHz BAND (1700 - 1900 MHz)

NOTIONAL ANTENNA RADIATION PATTERN ENVELOPE

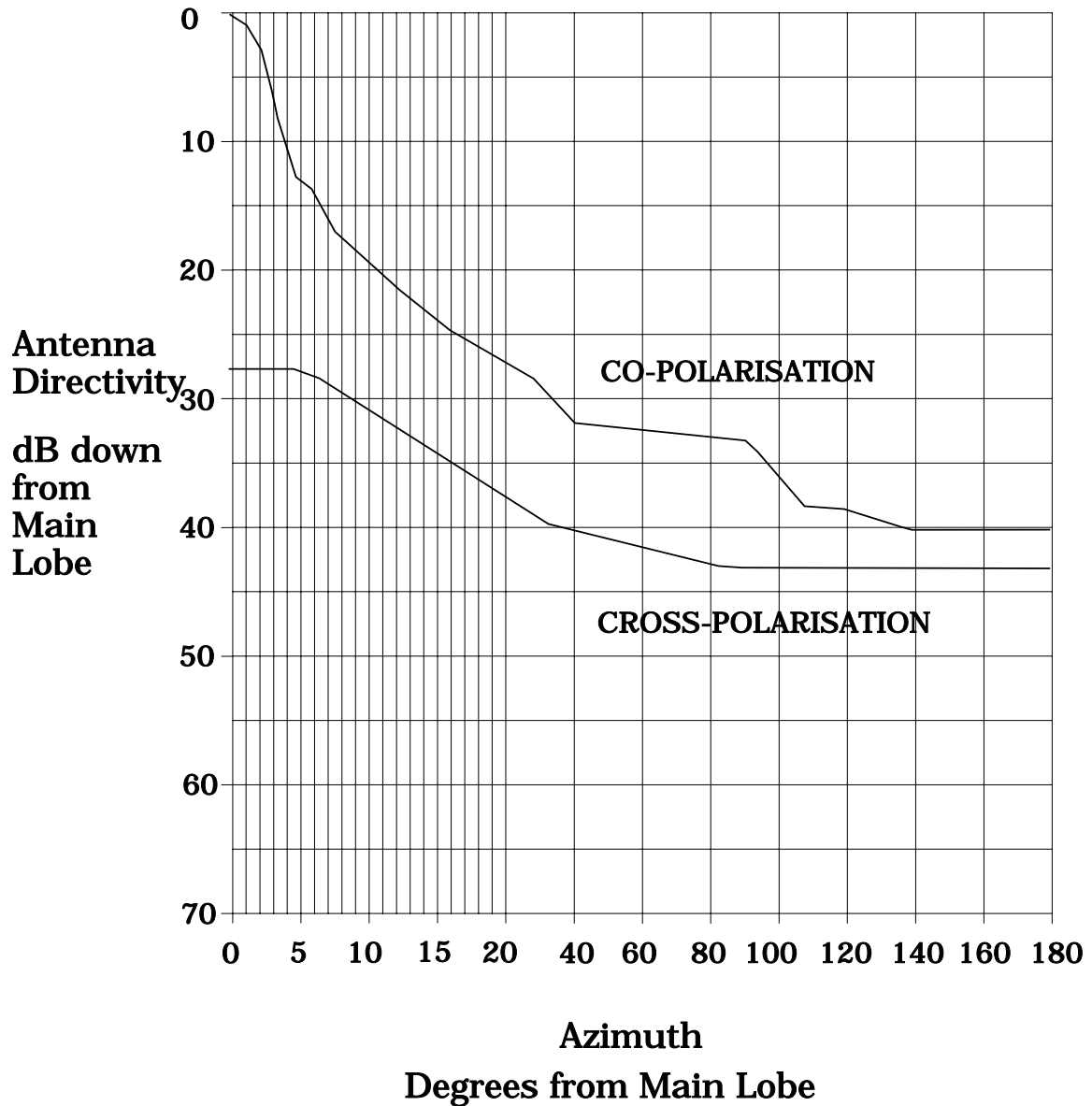
Diameter	1.8 m (grid parabolic dish)
Notional Half Power Beam Width	6 degrees
Notional On-Axis Gain	28 dBi



THE 2.1 GHz BAND (1900 - 2300 MHz)

NOTIONAL ANTENNA RADIATION PATTERN ENVELOPE

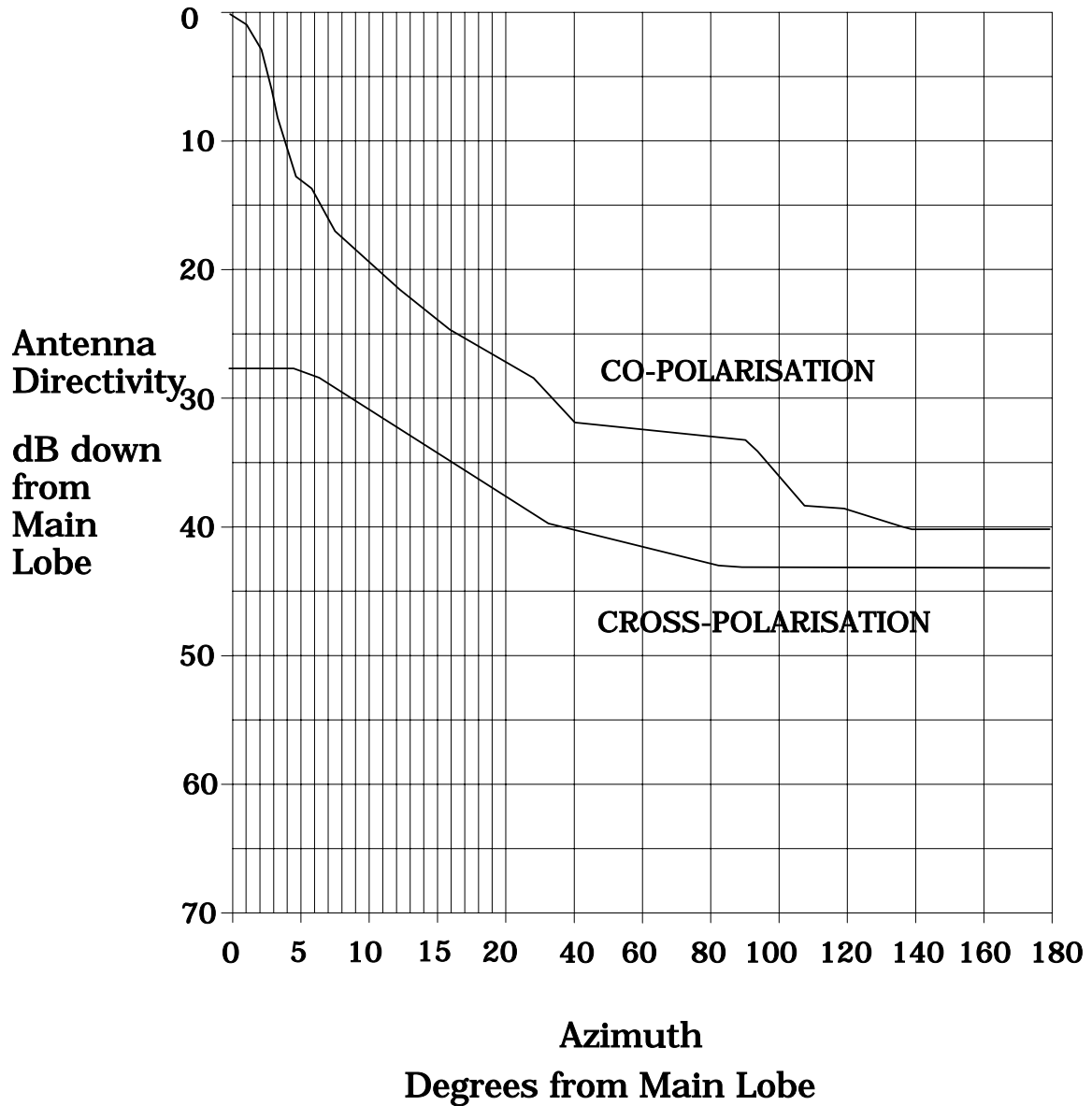
Diameter	3.0 m (grid parabolic dish)
Notional Half Power Beam Width	3.3 degrees
Notional On-Axis Gain	33 dBi



THE 2.2 GHz BAND (2025 - 2285 MHz)

NOTIONAL ANTENNA RADIATION PATTERN ENVELOPE

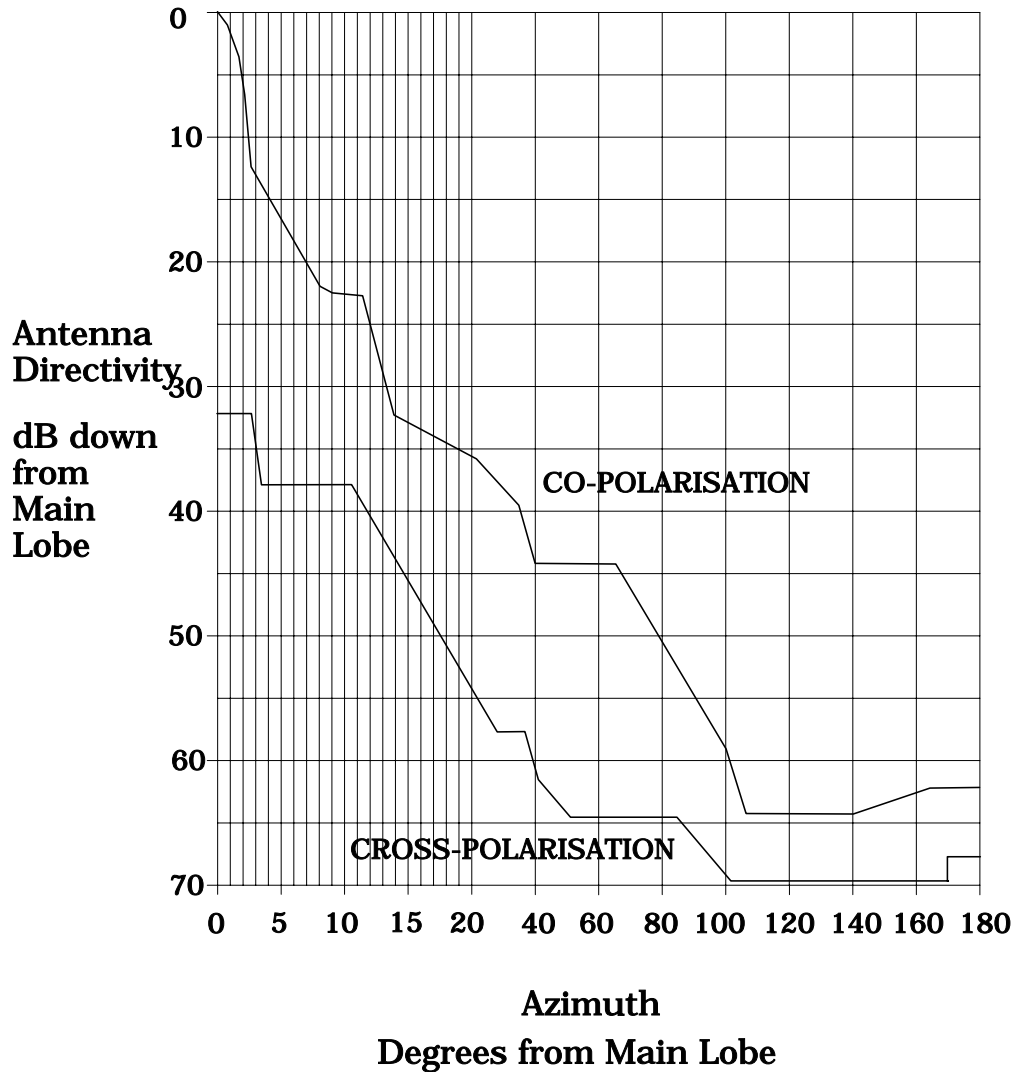
Diameter	3.0 m (grid parabolic dish)
Notional Half Power Beam Width	3.3 degrees
Notional On-Axis Gain	33 dBi



THE 3.8 GHz BAND (3580 - 4200 MHz)

NOTIONAL ANTENNA RADIATION PATTERN ENVELOPE

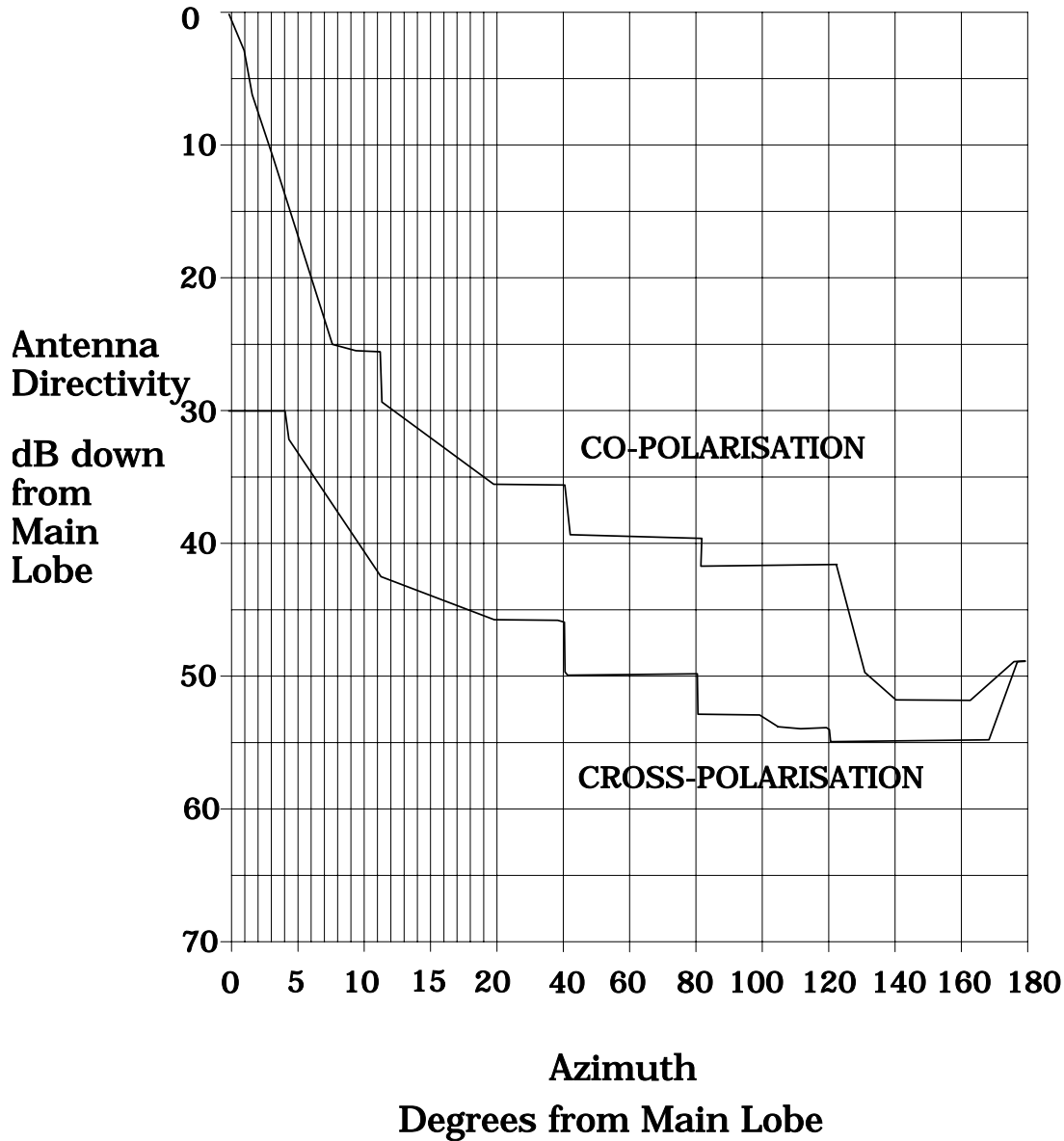
Diameter	3.0 m (high performance parabolic dish)
Notional Half Power Beam Width	1.7 degrees
Notional On-Axis Gain	39 dBi



THE 6 GHz BAND (5925 - 6425 MHz)

NOTIONAL ANTENNA RADIATION PATTERN ENVELOPE

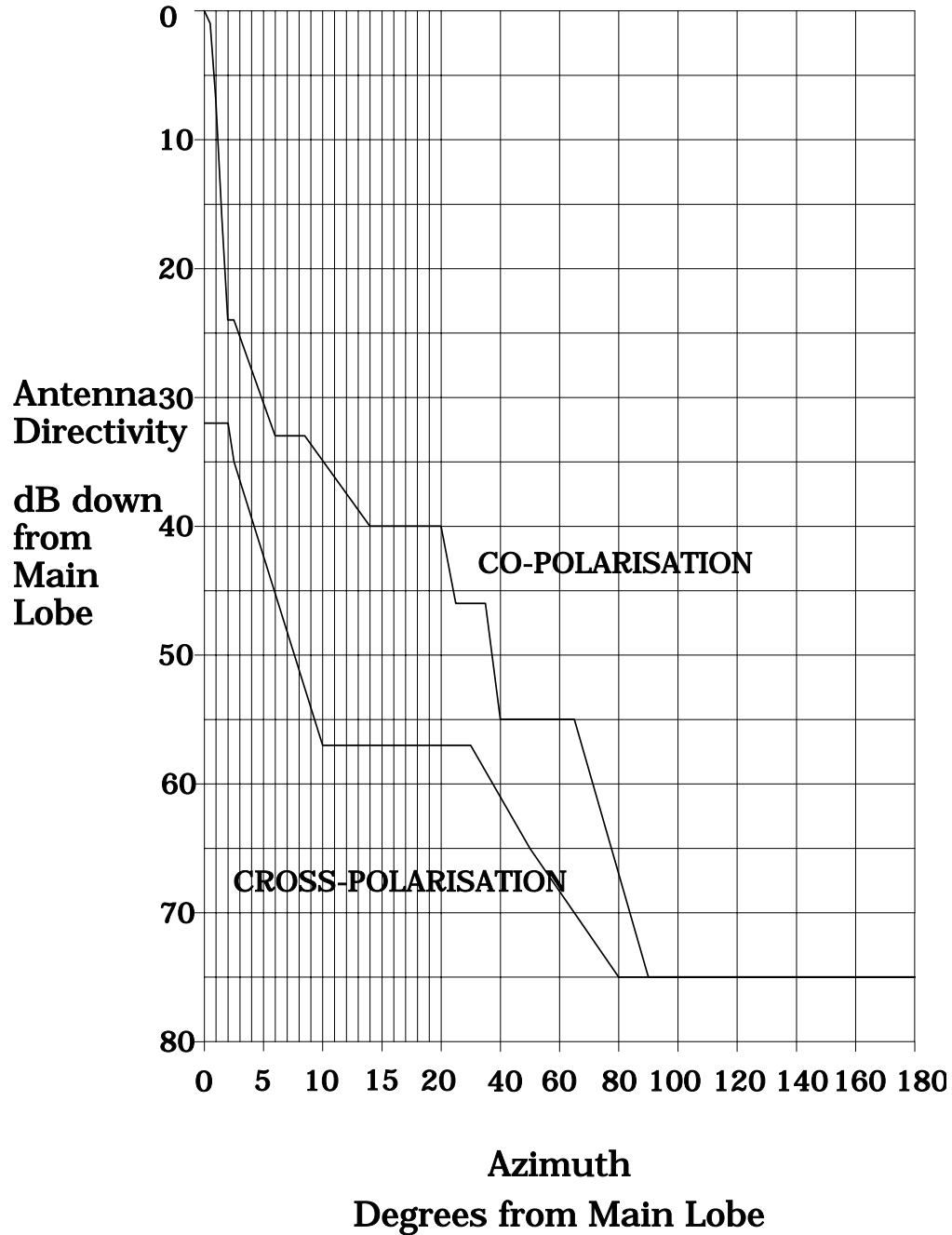
Diameter	3.0 m (standard parabolic dish)
Notional Half Power Beam Width	1.2 degrees
Notional On-Axis Gain	43 dBi



THE 6.7 GHz BAND (6425 - 7110 MHz)

NOTIONAL ANTENNA RADIATION PATTERN ENVELOPE

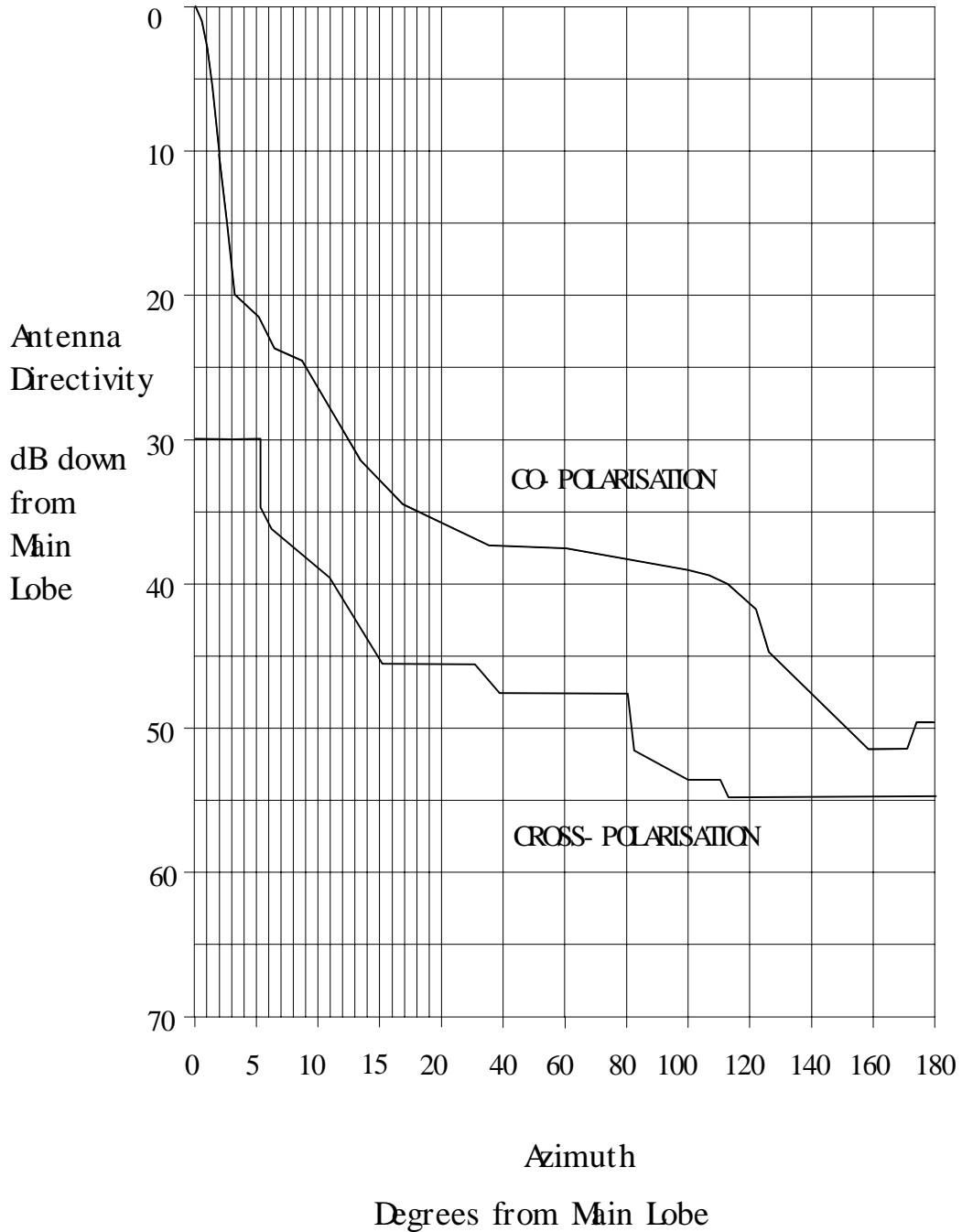
Diameter	3.0 m (high performance parabolic dish)
Notional Half Power Beam Width	1.1 degrees
Notional On-Axis Gain	44 dBi



THE 7.5 GHz BAND (7425 - 7725 MHz)

NOTIONAL ANTENNA RADIATION PATTERN ENVELOPE

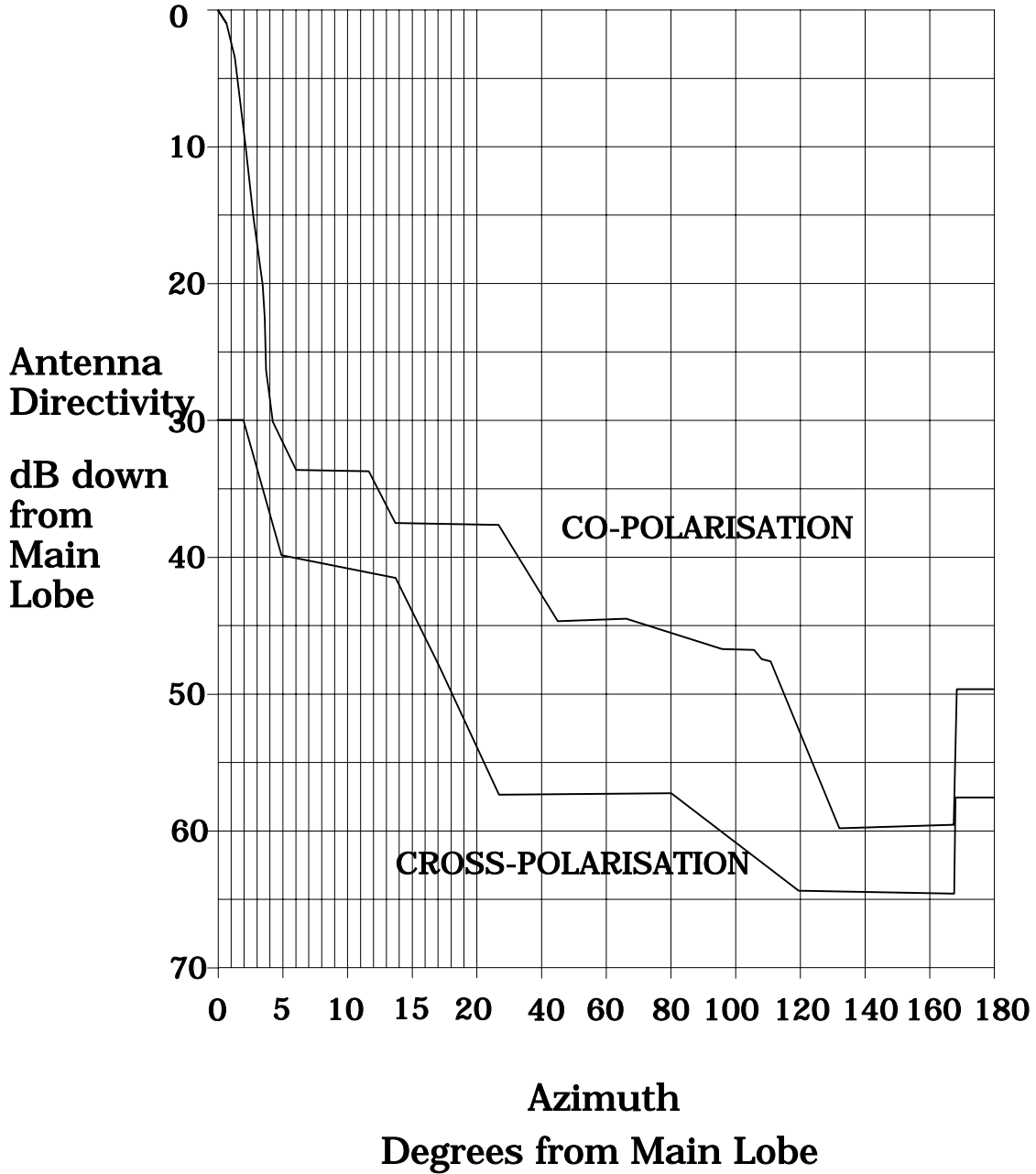
Diameter	1.8 m (standard parabolic dish)
Notional Half Power Beam Width	1.5 degrees
Notional On-Axis Gain	40 dBi



THE 8 GHz BAND (7725 - 8275 MHz)

NOTIONAL ANTENNA RADIATION PATTERN ENVELOPE

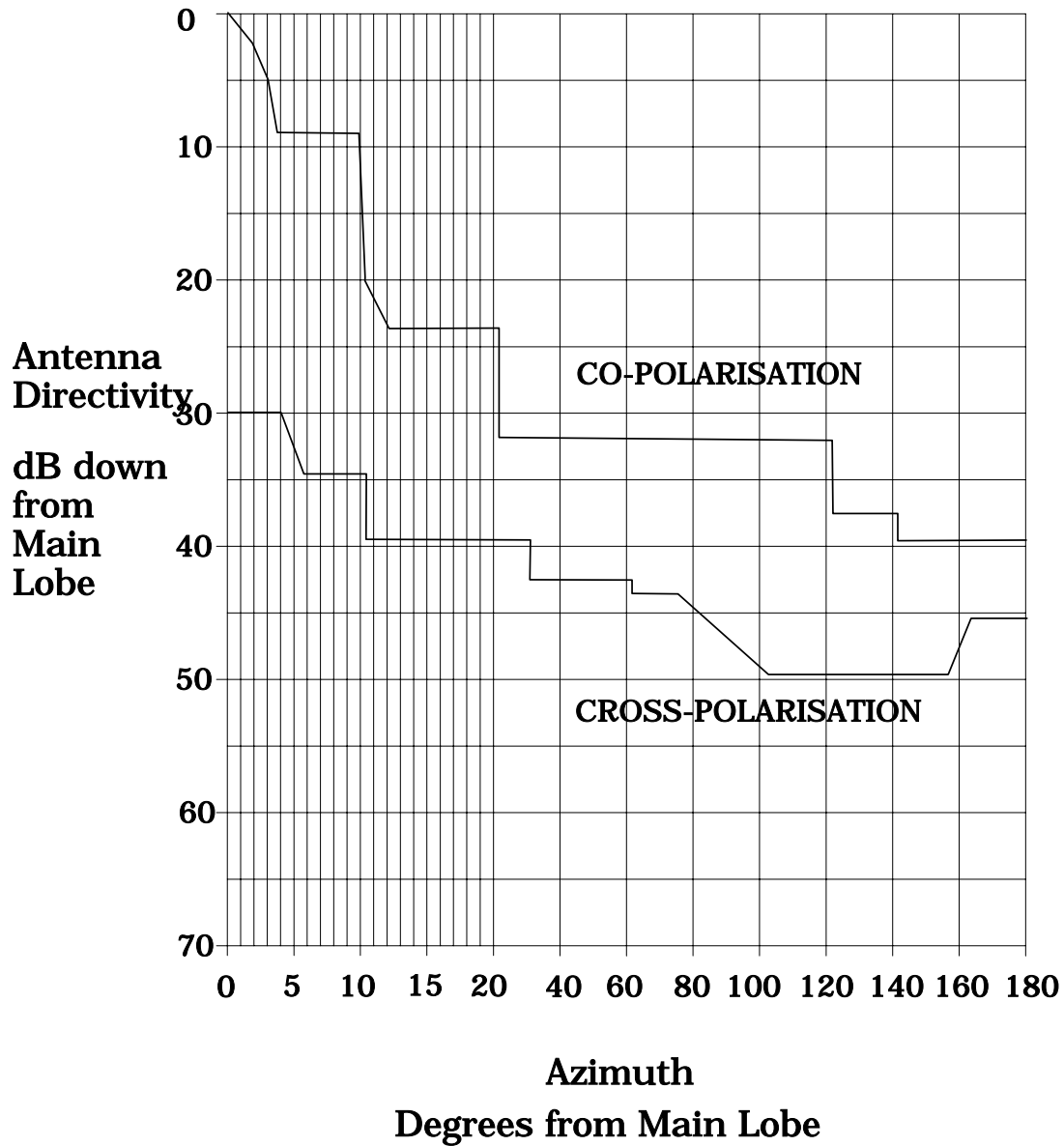
Diameter	2.4 m (standard parabolic dish)
Notional Half Power Beam Width	1.1 degrees
Notional Gain	43 dBi



THE 10 GHz BAND (10.55 - 10.68 GHz)

NOTIONAL ANTENNA RADIATION PATTERN ENVELOPE

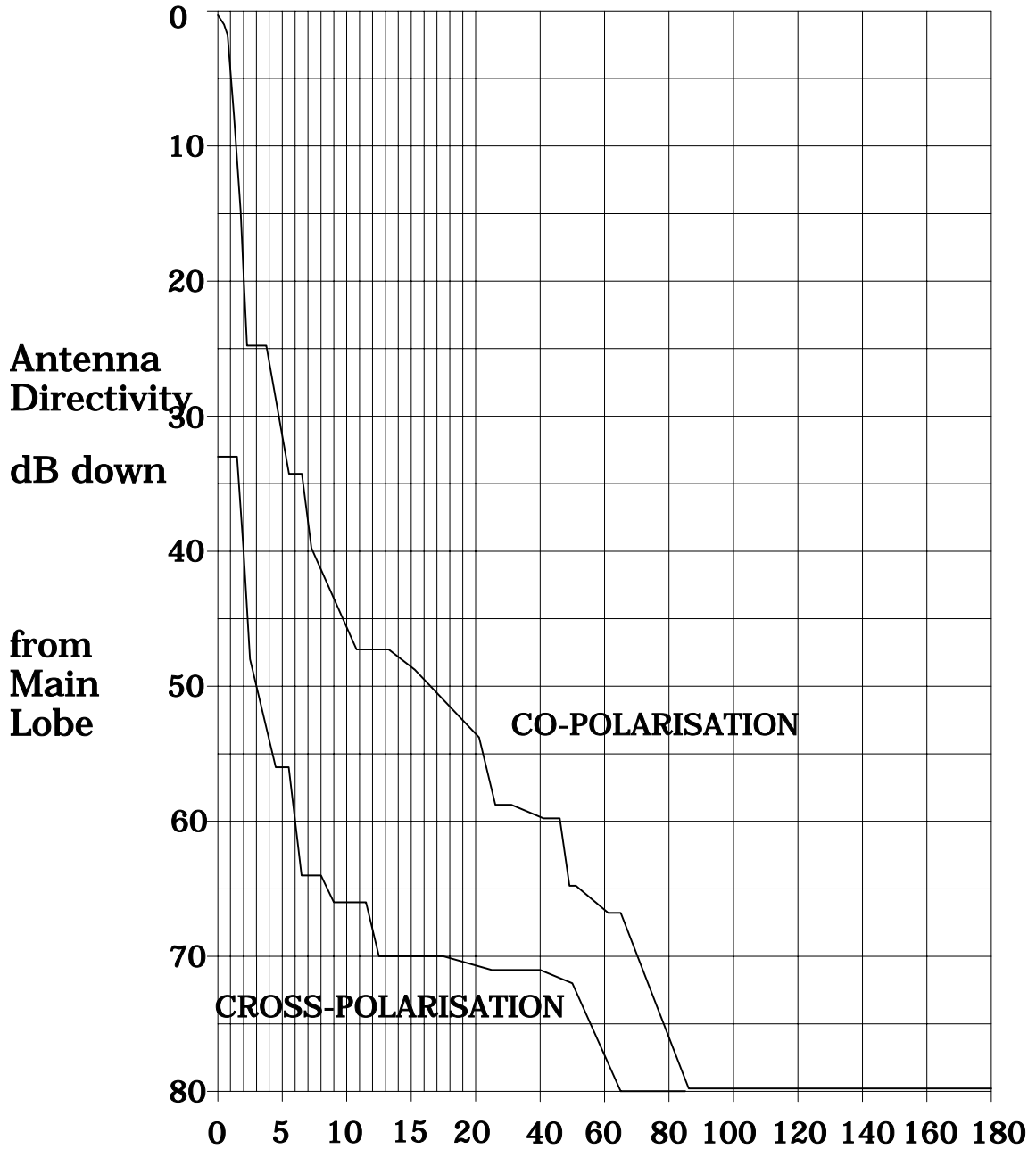
Diameter	0.6 m (standard parabolic dish)
Notional Half Power Beam Width	3.6 degrees
Notional Gain	33 dBi



11 GHz BAND (10.7 - 11.7 GHz)

NOTIONAL ANTENNA RADIATION PATTERN ENVELOPE

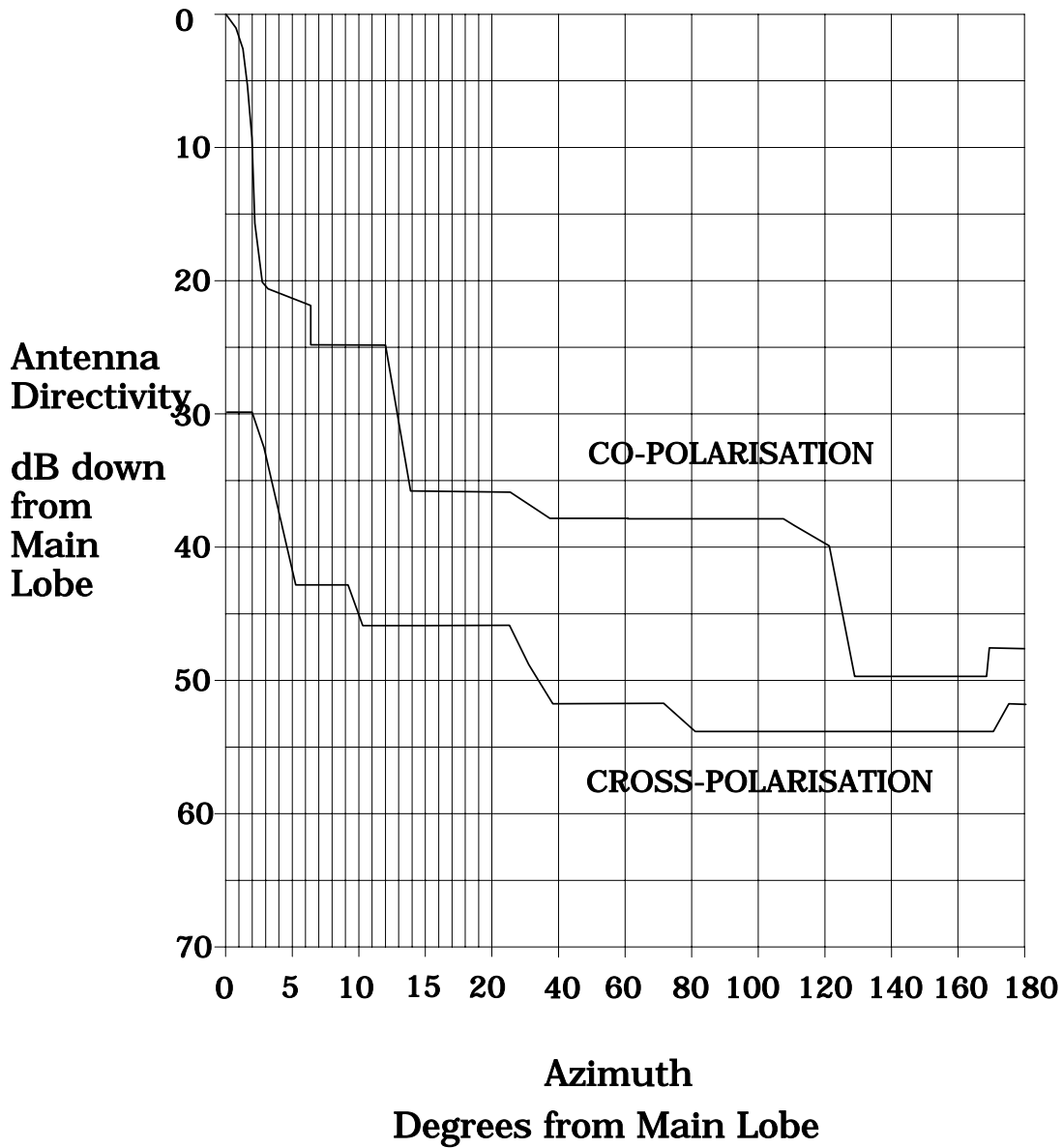
Diameter	1.8 m (high performance parabolic dish)
Notional Half Power Beam Width	1 degree
Notional On-Axis Gain	44 dBi



THE 13 GHz BAND (12.75 - 13.25 GHz)

NOTIONAL ANTENNA RADIATION PATTERN ENVELOPE

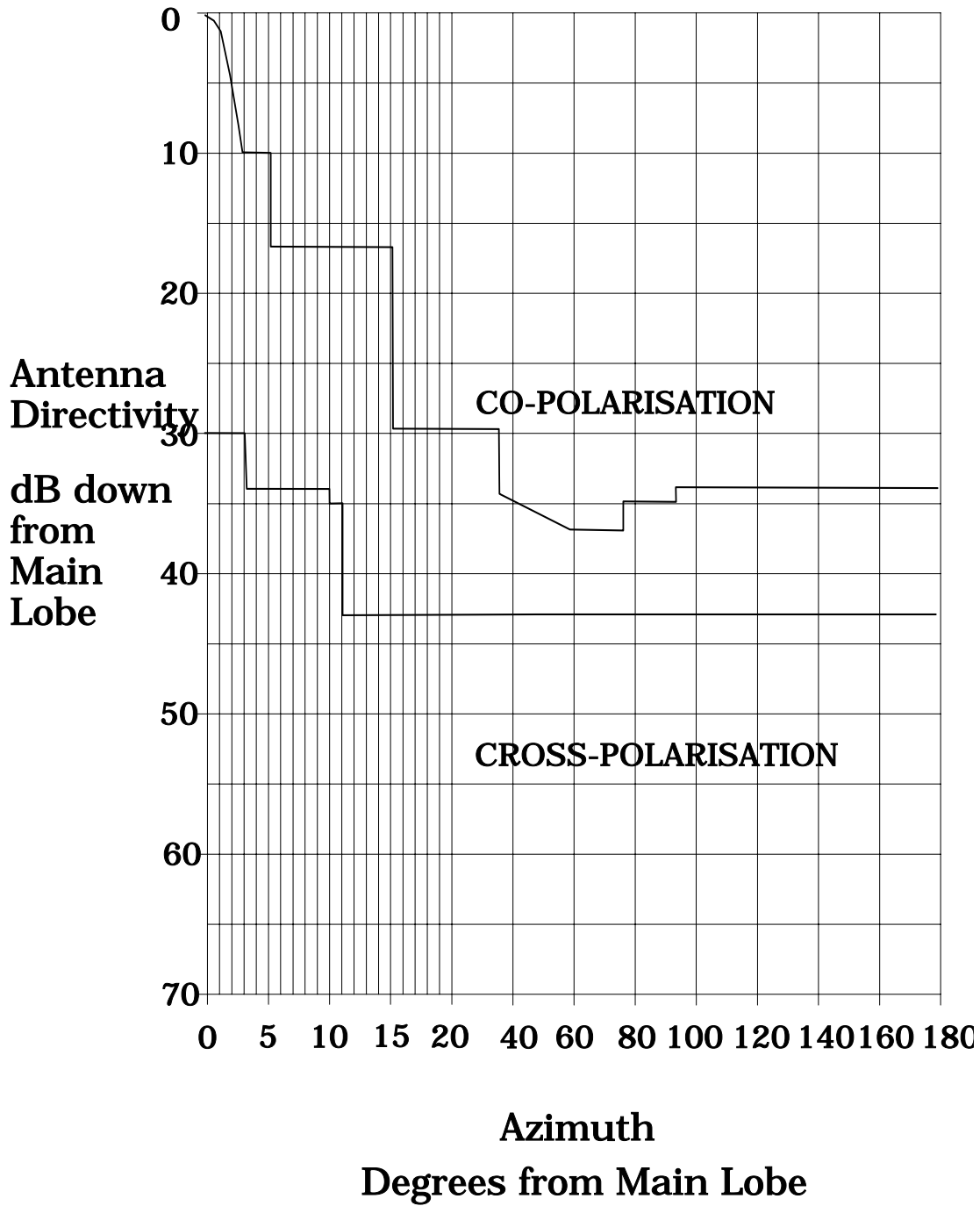
Diameter	1.2 m (standard parabolic dish)
Notional Half Power Beam Width	1.4 degrees
Notional On-Axis Gain	41 dBi



THE 15 GHz BAND (14.5 - 15.35 GHz)

NOTIONAL ANTENNA RADIATION PATTERN ENVELOPE

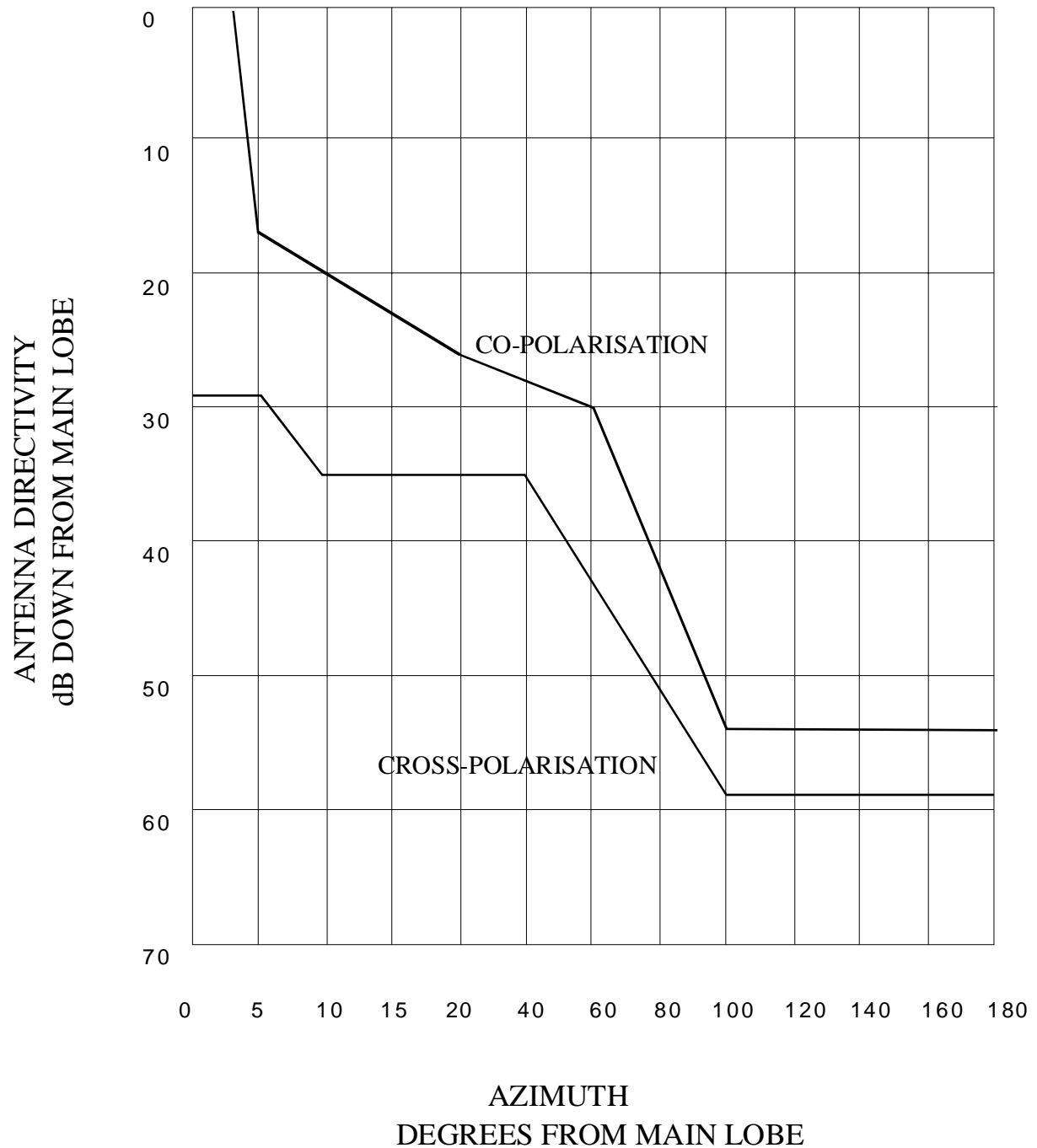
Diameter	0.6 m (standard parabolic dish)
Notional Half Power Beam Width	2.3 degrees
Notional On-Axis Gain	36 dBi



THE 18 GHz BAND (17.7 - 19.7 GHz)

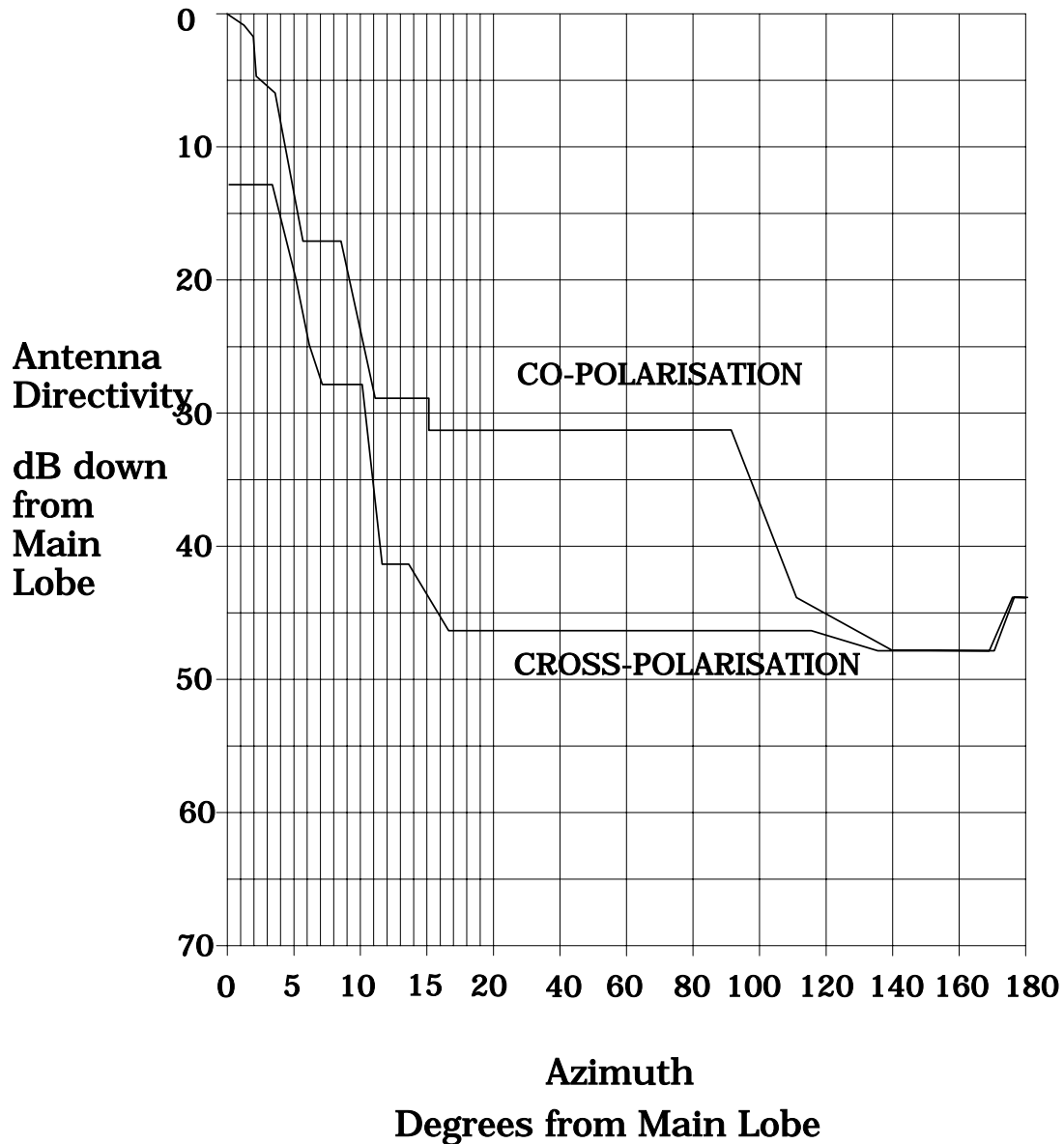
NOTIONAL ANTENNA RADIATION PATTERN ENVELOPE

Diameter	0.3 m (high performance parabolic dish)
Notional Half Power Beam Width	3.6 Degrees
Notional On-Axis Gain	33.5 dBi



THE 22 GHz BAND (21.2 - 23.6 GHz)**NOTIONAL ANTENNA RADIATION PATTERN ENVELOPE**

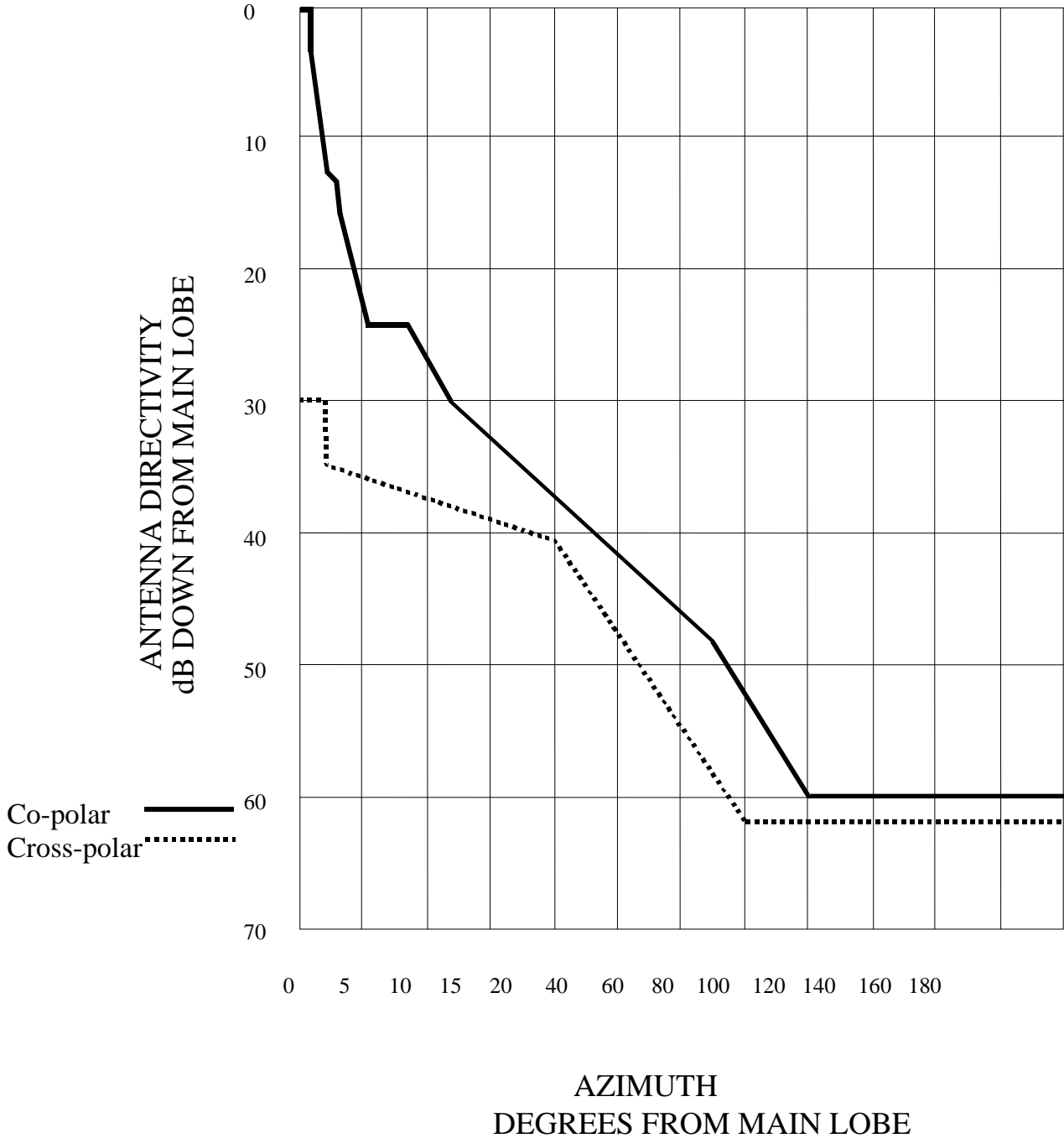
Diameter	0.3 m (standard parabolic dish)
Notional Half Power Beam Width	3 Degrees
Notional On-Axis Gain	33 dBi



THE 38 GHz BAND (37 - 39.5 GHz)

NOTIONAL ANTENNA RADIATION PATTERN ENVELOPE

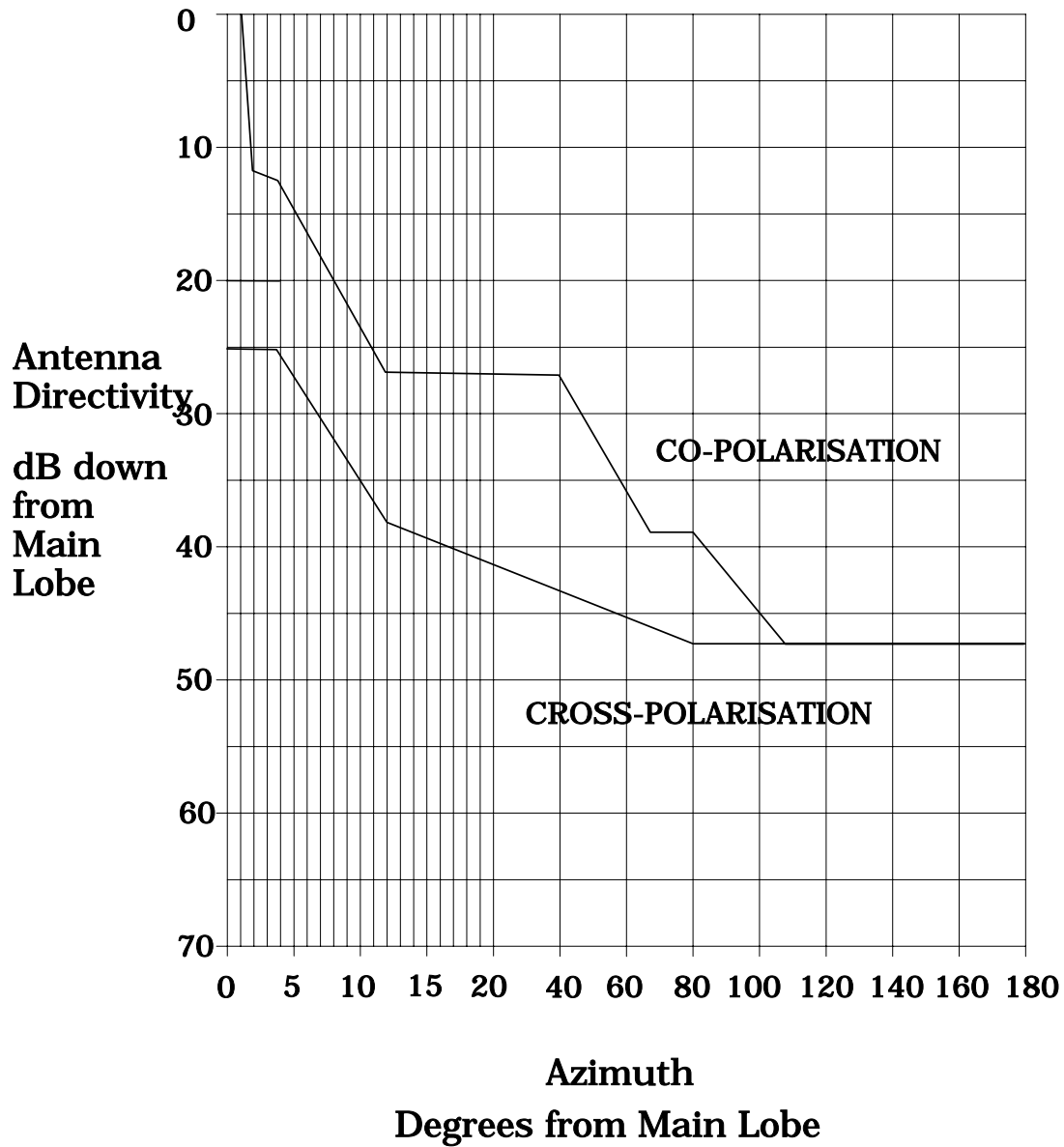
Diameter	0.3 m (standard parabolic dish)
Notional Half Power Beam Width	1.7 degrees
Notional On-axis Gain	39.5 dBi



THE 50 GHz BAND (50.4 - 51.15 GHz)

NOTIONAL ANTENNA RADIATION PATTERN ENVELOPE

Diameter	0.3 m (standard parabolic dish)
Notional Half Power Beam Width	1.3 degrees
Notional On-Axis Gain	44 dBi



THE 58 GHz BAND (57.2 – 58.2 GHz)**NOTIONAL ANTENNA RADIATION PATTERN ENVELOPE**

The notional antenna is specified as a minimum 30 dBi directional antenna with an out of main beam RPE as shown in Figure 1 (see ETSI standard ETS 300 408). System EIRP is limited to 15 dBW (see Appendix 1 58 GHz Band).

