

Wi-LAN Inc.

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From: Jeffery Taylor

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Ref.: FCC ID: K4BEB03

This is to verify that whenever a sectoral antenna (meant for point-to multipoint application) of greater gain than 16 dBi, and up to the maximum value used of 18.5 dBi (as per ETC's testing) is supplied with the equipment, subject to this certification process, a cable of enough length will be supplied along with the antenna to assure compliance with the E.I.R.P. limits specified in clause 15.247(b)(3).

The following table shows the minimum length of cable necessary to provide at least 2.5 dB of loss. This table is also found on page 120 of the user manual.

Cable Type	Minimum Length (m)
LMR 400	12
LMR 600	18
LMR 900	26
LMR 1200	34
LMR 1700	45
LDF2-50 3/8"	14
LDF4-50A 1/2"	20
LDF5-50A 7/8"	35
LDF6-50 1 1/4"	48
RG58 A/U	3
Eupan	21

CALCULATION EXAMPLE:

An example of the cable that can be used is ${\tt LDF4}~-50~$ which has losses of 0.128dB/m at 2.4 GHz.

Length required to assure compliance = 2.5(dB) / 0.128(dB/m) = 19.53 m

E.I.R.P = Power output + Antenna assembly gain E.I.R.P = Power output - Cable loss + Antenna gain E.I.R.P = 20dBm - 2.5dB + 18.5 dBi E.I.R.P = 36 dBm

Please call me if you have any concerns.

Sincerely:

Jeffery Taylor Compliance Technologist
