

Company: Comotech Corporation

Test of: Airlight

To: FCC CFR 47 Part 101

Report No.: COMO01-U2 MPE Rev A

MPE TEST REPORT



MPE TEST REPORT



Test of: Comotech Corporation - Airlight

to

To: FCC CFR 47 Part 101

Test Report Serial No.: COMO01-U2 MPE Rev A

This report supersedes: NONE

Applicant: Comotech Corporation
908-6, UKIC, 812-1, Hyomun-Dong
Buk-Gu, Ulsan-City
South Korea 683-360

Product Function: Point to Point Radio Link for network
backhaul

Issue Date: 11th November 2015

This Test Report is Issued Under the Authority of:

MiCOM Labs, Inc.
575 Boulder Court
Pleasanton California 94566
USA
Phone: +1 (925) 462-0304
Fax: +1 (925) 462-0306
www.micomlabs.com



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1. MAXIMUM PERMISSABLE EXPOSURE

Maximum Permissible Exposure
FCC, Part 101

Calculations for Maximum Permissible Exposure Levels

Power Density = P_d (mW/cm²) = $EIRP / (4\pi d^2)$

$EIRP = P * G$

P = Peak output power (mW)

G = Antenna numeric gain (numeric)

d = Separation distance (cm)

Numeric Gain = $10^{(G \text{ (dBi)}/10)}$

The Comotech Airlight Microwave Fixed Link calculations are based on a worst case scenario. The Airlight device is professionally installed.

Maximum Antenna Gain = 51.0 dBi (Numeric 125,892.5)

Maximum Conducted Power Measured (Channel 73,375 MHz) = +9.6 dBm

The EUT belongs to the Controlled Exposure the limit of power density is 5.0 mW/cm²

Freq. Band (MHz)	Antenna Gain (dBi)	Effective Numeric Gain (numeric)	Max Peak Output Power (dBm)	Max Peak Output Power (mW)	Peak Output Power (mW/EIRP)	Distance (cm)	
						Calculated Safe Distance @ 5mW/cm ² Limit(cm)	Minimum Separation Distance (cm)
75,375.0	45.0	31622.8	9.6	9.12	288,399.9	67.7	67.7
75,375.0	51.0	125892.5	9.6	9.12	1,148,139.6	135.2	135.2

Note: for mobile or fixed location transmitters the minimum separation distance is 20cm, even if calculations indicate the MPE distance to be less.

Specification

Maximum Permissible Exposure Limits

Systems operating under the provisions of this section shall be operated in a manner that ensures that the public is not exposed to radio frequency levels in excess of the Commission's guidelines. See §1.1310 of this chapter.

Limit = 5 mW / cm² from 1.310 Table 1, (A) Limits for Occupational/Controlled Exposure

Laboratory Measurement Uncertainty for Power Measurements

Measurement uncertainty	±1.33dB
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575 Boulder Court
Pleasanton, California 94566, USA
Tel: +1 (925) 462 0304
Fax: +1 (925) 462 0306
www.micomlabs.com