

Technical Details Leaky Line Prototype 6 from

GORE

TO

COPY

FROM

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REFERENCE

Insertion Loss of this Leaky Line Antenna Prototype (6): 13,8 dB/60m @2.4GHz

Impedance with antenna sections: 50 +5/-2 dB
without antenna sections: 50 ±2 dB

Longitudinal transmission loss 1,0 GHz: 1,4 dB/10m
2,5 GHz: 2,3 dB/10m
6,0 GHz: 3,6 dB/10m
(without antenna sections)

Return loss 18dB nominal, 15dB min. at frequencies up to 6 GHz

Transfer impedance >100 Ω/m up to 6 GHz
(for single antenna section)

Operating frequency band 810.0 – 960.0 MHz (GSM 850 PDC + GSM900 band)
1610.0 – 1621.35 MHz (GLOBAL Star uplink)
1616.0 – 1626.5 MHz (IRIDIUM SAT)
1710.0 – 1880.0 MHz (GSM 1800 band)
1850.0 – 1990.0 MHz (GSM 1900 band)
1920.0 – 2170.0 MHz (UMTS band)
2400.0 – 2500.0 MHz (IMS band+ Globalstar downlink)
4900.0 – 5850.0 MHz (WLAN 802.11a)

The gain of the Leaky Line Antenna shall be constant from begin to the end and shall be according to all system definition described in table 1 independent from the length

SYSTEM	GAIN
GSM 850 PDC	≥ - 35dBi
GSM 900	≥ - 35dBi
Global Star	≥ - 30dBi
Iridium Sat	≥ - 30dBi
GSM 1800	≥ - 35dBi
GSM 1900	≥ - 35dBi
UMTS	≥ - 30dBi
IMS	≥ - 30dBi
WLAN 802.11a,h,b,g	≥ - 30dBi

Table 2: Leaky Line Antenna gain

Two steps for installation length in A380:

1. CWLU installation in section 15: max length of Leaky Line Antenna up to 30m
2. CWLU installation in upper e-bay: max length of Leaky Line Antenna up to 55m