LB3088D/4E & LB3088D/4E-GPS

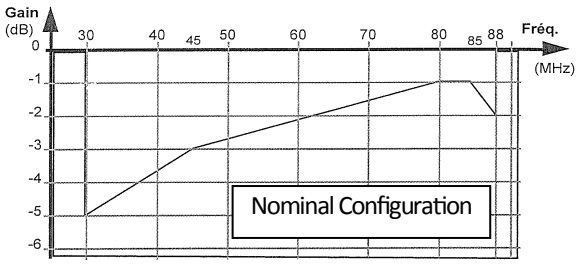
End Fed VHF Vehicle Antenna with GPS option

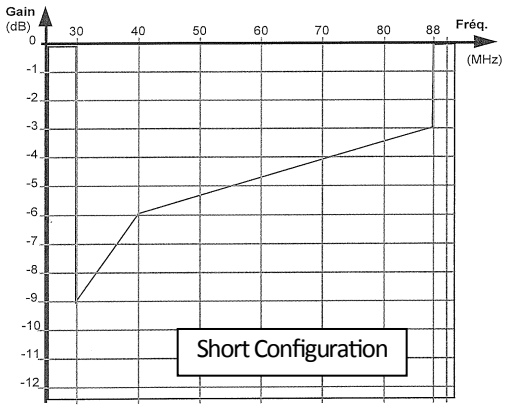
GENERAL DESCRIPTION AND APPLICATION

End-Fed antenna type particularly designed for vehicles with ground plane. Works in E/R without tuning in the whole band 30-88MHz. Protected against EMP threat and compatible with all VHF hopping combat radios Works in Short (1 whip) or Nominal (2 whips) configurations to allow full omni-directional communication pattern even on high vehicles (no need to tie-down)

GENERAL SPECIFICATION

Description	LB3088D/4E	LB3088D/4E-GPS
Frequency	30-88 MHz	
Weight	2.5 kg	
Polarisation	Vertical	
VSWR (normal configuration)	≤ 3:1	
VSWR (short configuration)	≤ 4:1	
Impedance	50 Ω	
Gain	See below...	
Power	100 w	
Colour	Army Green or Sand	
Connection	BNC Female	VHF - BNC female GPS - SMA or TNC female
Length (normal configuration)	2750 mm ± 25 mm	2794 mm ± 25 mm
Length (short configuration)	1500 mm ± 25 mm	1544 mm ± 25 mm



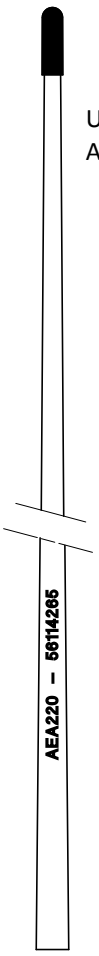


Test	Severity	Norm
MECHANICAL CHARACTERISTICS		
Sinusoid vibrations	3 axes	GAM-T13, 1st part, sheet n°41-02, BA331 MIL-STD-810E, method 514-4
Mechanical chocks	3 chocks ½ Sinus	GAM-T13,1st part, sheet n°43, 3F1 MIL-STD-810E, method 516-3, procedure I
Free fall down	26x1,20m fall down on a pine sheet	GAM-T13, 1st part, sheet n°46, BB1 MIL-STD-810E, method 516-4, procedure IV
Passage under gantry	25 passages at 40km/h	-
Endurance test	8h	-
Whip threading strength	225daN during 1 minute	-
ENVIRONMENTAL CHARACTERISTICS		
Minimal temperature for operation	-40°C / 16h	GAM-T13, 1st part, sheet n°01-01, BD1 MIL-STD-810E, method 502-3, procedure II
Minimal temperature for storage	-40°C / 72h	GAM-T13, 1st part, sheet n°01-02, CD1 MIL-STD-810E, method 502-3, procedure I
High dry temperature for operation	+70°C / 16h	GAM-T13, 1st part, sheet n°02-01, BC1 MIL-STD-810E, method 501-3, procedure II
High dry temperature for storage	+70°C / 72h	GAM-T13, 1st part, sheet n°02-02, CC2 MIL-STD-810E, method 501-3, procedure I
High wet temperature for operation	+40°C to 93% HR	GAM-T13, 1st part, sheet n°03-01, 1 CA1 MIL-STD-810E, method 507-3, procedure III
High wet temperature for storage	+40°C to 93% HR	GAM-T13, 1st part, sheet n°03-02, 10 CA1 MIL-STD-810E, method 507-3, procedure III
Salt fog	96 hours at 35°C	GAM-T13, 1st part, sheet n°04-01, AE2 MIL-STD-810E, method 509-3
Altitude (operation)	-40°C, 570mbar, 16 hour	GAM-T13, 1st part, sheet n°05-01, BB1 MIL-STD-810E, method 500-3, procedure II
Air transport	-40°C, 330mbar, 16 hours	GAM-T13, 1st part, sheet n°05-01 MIL-STD-810E, method 500-3, procedure I
Solar radiation	168 hours at Xenotest 168 hours at 1120 W/m²	GAM-T13, 1st part, sheet n°09, 168C1 MIL-STD-810E, method 505-3, procedure II
Rain	500 ±100mm/h, 30mn	GAM-T13, 1st part, sheet n°12 MIL-STD-810E, method 506-3, procedure III
Immersion	depth 1m, 2 hours	GAM-T13, 1st part, sheet n°15, AB1 MIL-STD-810E, method 512-3, procedure I
Sand and dust	16h / 3 directions	GAM-T13, 1st part, sheet n°18, AA2 MIL-STD-810E, method 510-3, procedure I
Ice, condensation, unfreezing	5 cycles -10°/-20°	GAM-T13, 1st part, sheet n°22, 5AB2 MIL-STD-810E, method 521-1
ELECTROMAGNETIC CHARACTERISTICS		
Ground continuity	B : r ≤ 10mW	GAM-T13, 1st part, sheet n°61
Dielectric strength	Tension of 50Hz, 1500V eff., 1 minute	GAM-T13, 1st part, sheet n°82 MIL-STD-202, method 301
EMP-HA	Compliant with PR4G specification	

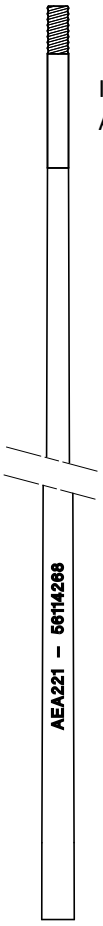
OPTIONAL GPS ANTENNA+AMPLIFIER (3V or 5V supply)

Overall specifications	LB3088D/4E-GPS-3V (ref.76702-1)	LB3088D/4E-GPS-5V (ref.76702-2)
Frequency range	1575.42 ± 1.023 MHz	
VSWR	2.0 max	
Polarization	RHCP	
Gain	27 ± 4 dBi	
Noise figure	1.6 dB max (+25°C)	2.0 dB max (+25°C)
input voltage	3.0V ± 0.3V	5.0V ± 0.5V
power consumption	15mA max	30mA max
connection	SMA	

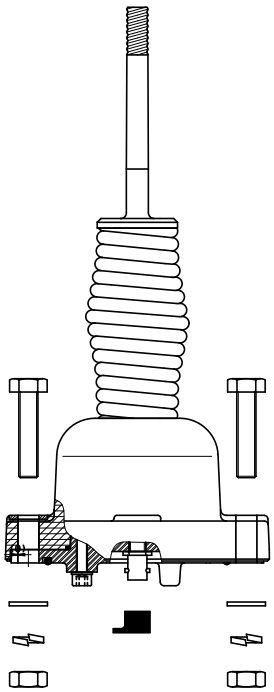
TOTAL UNITS



UPPER WHIP
AEA220 - 56114265

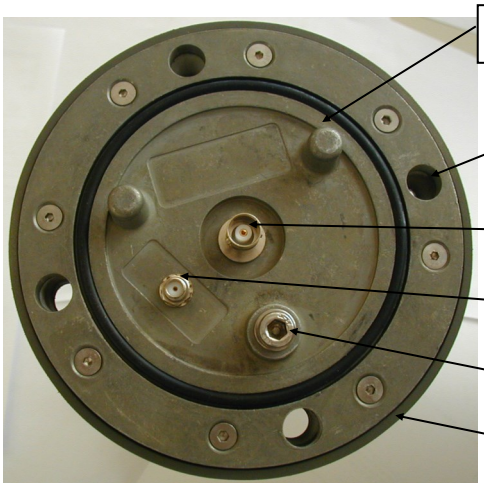


INTERMEDIATE WHIP
AEA221 - 56 114 268



US OTAN
type base for vehicle

VEHICLE INSTALLATION



NOTE : A special design (vehicle base) is available for LEOPOARD I armoured vehicles.

CODIFICATION

Description	COMROD reference	THALES Reference
VHF End-Fed antenna for vehicle	F3435-76423	ANT209
VHF End-Fed antenna for vehicle with 3.3V GPS	F3435-76702-1	ANT222
VHF End-Fed antenna for vehicle with 5V GPS	F3435-76702-2	