

EASA certified multiband antenna with 743 ARINC profile

Article No.: MAT743GPS1216A-T1

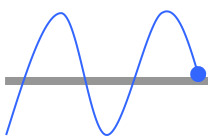
Description:

This very robust GNSS multiband antenna is mainly used in aircraft and can be used immediately thanks to the optionally available EASA Form1 certification. The antenna can be used in the military as well as in civilian use. The antenna provides a total gain of 33dB and enables the reception of signals even under difficult conditions. With our special halogen-free and heavy-duty low-loss HF cables, you can also operate this antenna with longer cable lengths.



Features:

- ARINC 743A footprint with EASA-Form1 approval
- Multi-band antenna for GPS L1 / L2 / L5, Glonass Beidou, Galileo E1 / E2 / E5 / E6 / L6, IRNSS and QZSS (filtering optionally available)
- 33dB amplifier (optionally available with 43dB LNA or passive)
- Hermetically sealed (IP69K)
- MTBF> 1,000,000 operating hours



Technical Data:

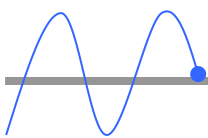
Article No.: MAT743GPS1216A-T1

ELECTRICAL:

<u>ELECTRICAL:</u>	L1 GPS/GLONASS/OmniStar / IRNSS B1-BeiDou / E1/E2/L6-Galileo / QZSS			L2/L5 GPS/GLONASS/ IRNSS B2/B3-Compass / E5/E6-Galileo		
FREQUENCY:	(1540-1610) MHz			(1164-1298) MHz		
RADIATION PATTERN:	HEMISPHERICAL					
POLARIZATION:	RHCP			RHCP		
VSWR:	< 2.0:1			< 2.0:1		
IMPEDANCE:	50 ohms			50 ohms		
ANTENNA GAIN (dBic):	Free Space	5 in G.P.	4 ft G.P.	Free Space	5 in G.P.	4 ft G.P.
@ 90 ° (ZENITH):	+ 3.5	+ 2.6	+ 1.7	+ 0.0	+ 2.0	+ 2.4
@ 10 ° Elevation:	- 3.3	- 4.1	- 3.0	- 6.5	- 4.0	- 6.3
@ 20 ° Elevation:	- 2.3	- 2.8	- 0.1	- 4.7	- 3.0	- 3.2
@ 30 ° Elevation:	- 1.0	- 1.0	+ 1.0	- 3.4	- 2.0	- 1.2
@ 60 - 90 ° Elevation:	> + 2.4	> +1.7	> +0.7	>-1.5	> +1.3	> 0
BEAM WIDTH (3dB):	95 Deg.	96 Deg.	145 Deg.	105 Deg.	99 Deg.	110 Deg.
AXIAL RATIO:	2 dB			2 dB		
LNA GAIN:	33 dB			33 dB		
LNA NOISE FIGURE:	2.8 dB			2.8 dB		
LNA P1dB Out:	+20 dBm			+20 dBm		
LNA DC POWER:	(2.5 to 24)Vdc @ < 56 mA					
INTERFERENCE REJECTION:	(20-1110)MHz: >(40-60)dB, (1360-1536)MHz: >(40-60)dB (1625-1660)MHz: >69 dB, (1625-2600)MHz: >69dB					
LIGHTNING PROTECTION:	INPUT: DC GROUND; OUTPUT: SURGE PROTECTION EN61000-4-5 Level 4					
HIGH POWER, BURNOUT & JAMMING PROTECTION:	Pin Max = +55dBm Microsec Pulse (+69 dBm is Available) 500V/m CW, 3300 V/m @ 10 μs PULSE @ 1 kHz RATE FROM 2MHz to 20 GHz					
MTBF:	1,000,000 Hrs					

Other technical data:

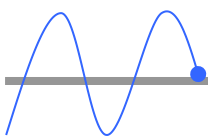
- Dimensions: 76.2mm x 119.38mm x 22.8mm (3.00in x 4.700in x 0.898in)
- Weight: 227g
- Operating temperature: -55 ° C to + 85 ° C (-68°F to + 185°F)
- Maximum operating altitude: 70,000ft (21,336m)
- Materials: aluminum alloy base, enamelled polyurethane radome, shock-resistant, UV-resistant, abrasion-resistant, flame-retardant, resistant to solvents and Skydrol lubricants
- Hermetically sealed according to IP69K



Teststandards:

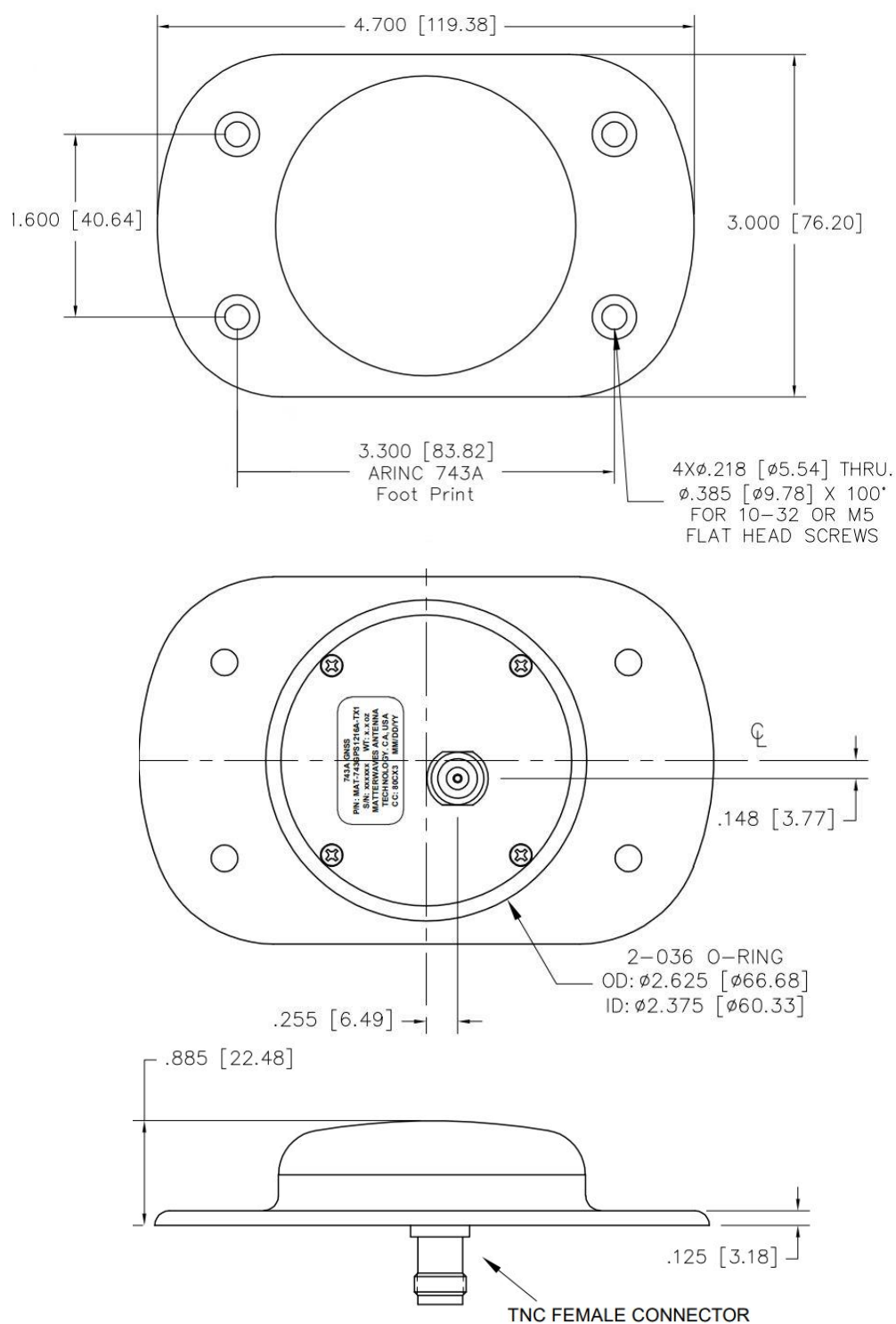
Article No.: MAT743GPS1216A-T1

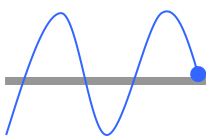
- TSO-C129/C132/C144
- MIL-C-5541 (Finish)
- MIL-DTL-14072 (Finish)
- DO-160/210/228 (Test)
- MIL-STD-810G (Test)
- MIL-STD461E/F (Electrical Interference)
- MIL-STD 464C (Electromagnetic)
- SAE J1455 (Environment)
- MIL-STD-202 (Electrical Compability)
- MIL-HDBK-5400/454 (Elec Eq)
- MIL-PRF-39012 (Con)
- MIL-STD 889B (Metal)
- EN55155 (Terminals)
- RCC-319-14 (Termination)
- MIL-STD-129/1285 (Marking)
- MIL-STD 130N-1 (ID)
- MIL-C-85704B (Solvent)
- MIL-G-81827 (Grease)
- RCC-324-01 (Safety)
- MIL-I-45208A/NAS411-1 (Hazardous Substances)



Drawings:

Article No.: MAT743GPS1216A-T1





Article Number Key:

Artikelnummer: MAT743GPS1216A-T1

		MAT	743	GPS	1216	A	-	T	1	
Dimension										Colour per FED-Std. 595B
743	=									1 = GLOSS WHITE #17925
										2 = LUSTERLESS GRAY #36320
										3 = CAMO GREEN #34094
Frequency										30 = OLIVE DRAB GREEN #34088
15	=									4 = LUSTERLESS BLACK #37038
1215	=									5 = DESERT SAND #33446
1216	=									
16	=									
LNA										
A	=									
A5	=									
P	=									
Connector										
S	=									
T	=									
N	=									
SB	=									
SSB	=									
M	=									
MM	=									
TB	=									
NB	=									

