

No. 2824

Functional Equivalency and Interchangeability of WAAS/SBAS GPS Antenna P/N 10708 for 1070X Antennas

Universal Avionics' GPS Antenna P/N 10708 is designed for use with Universal Avionics' Wide Area Augmentation System (WAAS) Space Based Augmentation System (SBAS) GPS and is one of the approved antennas for use with Universal Avionics' WAAS/SBAS FMS and LP/LPV Monitor installations.

When provisioning for WAAS/SBAS GPS the 10708 antenna must be installed. With the exception of supporting WAAS/SBAS GPS, the 10708 antenna is fully interchangeable with other 1070X GPS antennas which have identical footprints. The 10705 is an exception when used for GLONASS.

FAA Advisory Circular No. 20-41A, "Substitute Technical Standard Order (TSO) Aircraft Equipment", may be referred to when using the 10708 antenna as a replacement for other 1070X antennas. All other 1070X antennas are certified to TSO-C144 with the exception of 10709 which is certified to TSO-C190.

Antenna Specifications

Characteristics	Specifications	
Weight	0.5 lbs.	
Frequency	1575.42 ±10.23 MHz	
VSWR	≤ 1.5:1	
Polarization	Right Hand Circular	
Radiation Pattern	Elevation Angle	Gain (dBic)
	0°	-5
	5°	-3.5
	10°	0
	20°	2
	30°	2
	30° < Elev. ≤ 75°	2.5
	>75°	3.0
Impedance	50 Ohms	
Gain	30 ±3 dB	
Power Handling	1 Watt	
Power Requirements	4.5-15 VDC	
Power Consumption	60.0 mA (max)	
Rejection @ SatCom Frequency of 1625 MHz	>60 dB	
Altitude	55,000 ft.	
Icing	With 0.050" thick hard ice on radome, a gain decrease of no greater than 2 dB from no ice condition when signal viewed at 30 degrees or greater elevation with respect to horizon.	
TSO	C190	