



L1/L2GPNRRKIT

Technical Product Data

Features

- **New L1/L2/L5 Galileo Glonass Omnistar Capability**
- **Re-Radiating Amplifier with Power Supply**
Gain ≥ 20 dB
- **Optional Mounting Kit Hardware**
Re-Radiating Amp Mount
- **Variable Gain Option Available**
Re-Radiating Amp Gain Varies from 0 to +20 dB

Description

The GPS Portable Re-Radiating Kit (L1/L2GPNRRKIT) is a re-radiating system that allows re-radiation of the GPS L1/L2/L5 & Galileo/GLONASS/Omnistar signals indoors. The L1/L2GPNRRKIT consists of a re-radiating amplifier with a wall mount plug-in transformer that powers the entire system and a passive re-radiating antenna. The GPS L1/L2/L5 & Galileo/GLONASS/Omnistar signal from the roof antenna is amplified and radiated indoors. Thus, if a receiver has line of sight with the re-radiating antenna, it can receive the GPS signal indoors up to 100 feet away.

Re-Radiating Amplifier

Electrical Specifications, $T_A = 25^{\circ}\text{C}$

Parameter	Conditions	Min	Typ	Max	Units
Freq. Range	Ant – J1	1.0		2.0	GHz
In/Out Imped.	Ant, J1		50		Ω
Gain ⁽¹⁾	Ant – J1, Normal Configuration	20	24.5	33	dB
	Variable Gain Option	0		+20	dB
Input SWR	J1 - 50 Ω			1.8:1	-
Output SWR	Ant - 50 Ω			1.8:1	-
Noise Figure	Ant – J1		2.4	2.7	dB
Gain Flatness	L1 – L2 ; Ant – J1		0.5	1	dB
Reverse Isolation	J1 – Ant	35			dB
Group delay Flatness	$\tau_{d,max} - \tau_{d,min}$: Ant – J1			1	ns

(1) For performance plots, see LA20RPDC Data Sheet

Re-Radiating Antenna

Electrical Specifications, T_A = 25⁰C

Parameter	Conditions	Min	Typ	Max	Units
Frequency	L1/L2/L5 Galileo GLONASS Omnistar		1.575/1.227/1.176 1.575/1.278 1.602/1.246 1.535		GHz GHz GHz GHz
Bandwidth				20	MHz
Impedance			50		Ω
Peak Gain			+3	+3.5	dBic
VSWR				1.5:1	
Polarization			RHCP		
DC Grounding	Lightning Protection		YES		

Mechanical Specifications (Passive L1/L2 Antenna)

Size: Diameter 2.60 in. (66.04 mm) Height: .64 in (16.18mm)

Weight: 4.06 oz. (115 Kg)

Finish: Skydrol Resistant Polyurethane Enamel, Base Iridite per MIL-C-5441

Color: Gloss White #17925 per FED STD-595B

Material: 6061-T6 ALUMINUM ALLOY BASE, THERMOSET PLASTIC
RADOME, UV, ABRASION & SKYDROL RESISTANCE

Connector: N-TYPE FEMALE

Environmental Specifications (L1/L2 Active and Passive Antennas)

Temperature: -67F to +185F (-55C to +85C)

Altitude: 70,000 Feet

Vibration: > 30G's

Leakage: Hermetically Sealed

Federal and Military Specifications

Design to: FAA TSO-C144, DO-160D, MIL-C-5541, MIL-E-5400, MIL-I-45208A &
MIL-STD-810 and SAE J1455

Available Options

Re-Radiating Amp System Power Supply Options		
Source Voltage Options	VOLTAGE INPUT	STYLE
	110VAC	Transformer (Wall Mount)
	220 VAC	Transformer (Wall Mount)
	240 VAC (United Kingdom)	Transformer (Wall Mount)
	Customer Supplied DC 9-32 VDC	Military Style Connector
Re-Radiating Amp Gain Control Options		
Normal Gain	Gain \geq 20 dB	
Variable Gain	0dB to +20dB	
Re-Radiating Amp RF Connector Options		
Connector Options	CONNECTOR STYLE	CHARGE
	Type N	NC
	Type SMA	NC
	Type TNC	NC
	Type BNC	NC

Part Number

