PRODUCT BRIEF

DR-5 UHF Transceiver

A Tough UHF Transceiver for DGPS Data Communication

The NavSync DR-5 was designed to be the perfect partner to our Sharpe XR6. The two units work together to provide the ideal solution where DGPS accuracy is required in the most rugged situation —whether on land, in the air, or afloat.

This NavSync UHF Transceiver is already widely used in test range vehicle and vessel tracking systems by the US military and many other defence departments worldwide.

The DR-5 operates at 9600 pbs, enabling the receiver to accept RTCM SC-104 (version 2.1) messages, and return positional information down the same data link. It can be synchronized to GPS time so that mobile location data can be retrieved and returned at scheduled times, allowing many vehicles to return their position every second without conflicting with the RTCM broadcast.

The NavSync DR-5 can also be used to transmit raw measurement data in Real Time Positioning Systems in order to achieve position accuracy down to a few centimeters.

The radio is tolerant to noisy RF environments and is available with two software selectable, pre-defined, factory set frequencies in the FCC license free band of 450 - 470 MHz. Normal operation range can be extended through the use of amplifiers and through the range of antennas available through NavSync.

Whatever your requirement in DGPS, you can rely on NavSync to provide the total solution.

Applications

- Vessel tracking
- Vehicle tracking
- Airborne telemetry
- Real time kinematics
- Test range scoring

NAVSYNC

Bulletin	
Revision	
Date	

NavSync DR-5 UHF TRANSCEIVER SPECIFICATIONS

SPECIFICATIONS

Performance	Frequency	UHF Transceiver
	Frequency Range	450 - 470 MHz*
	Channel Spacing	12.5 or 25 kHz*
	Transmit Power	2 Watts
	Transmit Data Rate	9600 or 4800 bps*
	Operating Mode	Half Duplex
	Channels	2 (Programmable)
	Frequency Control	Synthesized
	Frequency Stability	2.5 ppm
	Bandwidth	10 MHz
	Deviation	3.5 kHz / 2.5 kHz
	PTT Source	GPS Radio Controlled (RTS) or Data Controlled*
	Selectivity	70 dB
	Spurious Rejection	60 dB
	Image Rejection	55 dB
Power Requirement	Input Voltage	10 - 33 VDC
	Protection Isolated	15W Reverse Protection
		Solid State Fused
	Power Consumption	1.2W receive
		13.5W transmit
Mechanical	Enclosure	Pressure die case aluminum box
	Size	175mm x 80mm x 57mm
	Weight	1 Kg
Interfaces	Finish	Stove enamel
	Compatibility	Fully compatible with XR5 and XR6 series GPS Receivers
	Data Port	R232D, 12 pin, 723 Type, 150 to 19200 BPS
	Power	3 pin, 723 Type
	Antenna	N type (Female)
Environmental	Temperature	Operation -10° to +65°C; Storage -25° to +75°C
	Humidity	95% non-condensing
	Sand Dust+	MIL-STD-810, methods 510.2, procedure 1
	Immersion+	IP 67. No leakage when immersed in water for 30 minutes to depth of 34cm
	Vibration	Operational
		8 (ground mobile), procedure 1
	EMI / EMC	FCC 15, 20 and 90

* User Configurable
\+ Design Criteria

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