OmniSTAR
3200LR12 DGPS Receiver System

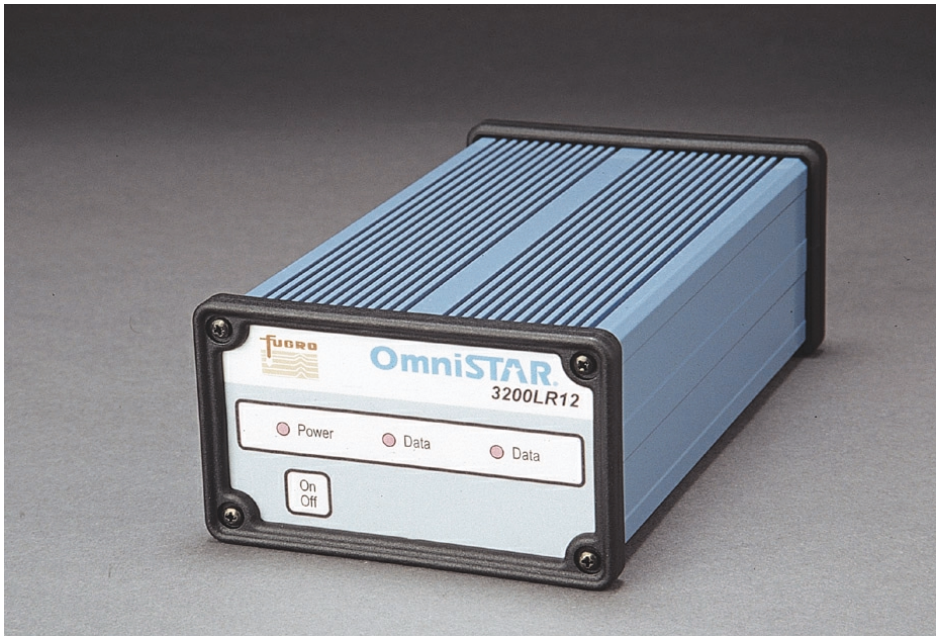
The 32000LR12 Series DGPS receivers are the product of years of research and development and represent the latest technology and one of the highest levels of integration yet be seen in Satellite DGPS receivers.

The 3200LR12 is a full function receiver system inside a small format field case with LED indicators and push button power on/off, Antenna input, Power & Data inputs & outputs. This model also incorporates a 12 Channel GPS Engine.

Fugro transmits differential GPS correction data to user mobile receiver units via L-band satellites worldwide. The correction data is generated by a network of ground (reference) stations located worldwide and monitored around the clock by three regional control centres. The normal operating environments for the receivers are:

The 3200LR12 boardset provides a powerful 12-channel GPS receiver and a satellite differential receiver on the same board assembly. When using the 3200LR12 with your choice of high quality antenna, both the GPS signal and the differential corrections are available to the boardset on a single antenna cable.

The high accuracy boardset provides sub-metre position accuracies. Differential speed accuracy is better than 0.1mph/0.16 kph. The positions are computed using robust differential processing techniques that allow position tracking to begin within seconds of power up.



Satellite differential capability

The L-band satellite differential receiver utilizes subscription based correction signals available from multiple vendors. This receiver permits satellite correction to be uniformly accurate over the entire satellite coverage area, avoiding the degradation in accuracy associated with increasing distance from a fixed reference station.

The L-band receiver utilizes a Trimble developed, sensitive design providing robust reception across the entire satellite coverage areas.

Powerful Options

The 3200LR12 is available 1Ohz update option. Everest multipath reduction is also an available option.

Subscription Service Options

VBS This is the Virtual Base Station Service where the user is provided with optimised RTCM corrections for the users current position.

Standard Features

- Submetre differential GPS accuracy
- Satellite L-band differential capability
- 12 Channel, parallel tracking, L1 C/A code with carrier phase filtered measurements
- <2 second acquisition and reacquisition time, typical
- Two programmable Rs-232 serial ports
- RTCM SC-104 input
- NMEA-0813 ouput
- TS I P I interface I/O
- J1939 network (CAN)

Applications

- Vehicle mounting for on/off road environments.
- Vessel mounting for precise navigation.
- Airborne operations for crop-dusting and aerial surveys.
- Precision farming installations.
- Backpack versions for geologists and surveyors.

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Technical Specifications†

Inputs and Outputs

Serial Ports:	Command, Data
Electrical Interface:	RS-232-C
Data Rates:	480O, 960O, 19200, 38400
Message Rate:	Typically 1-2 seconds output
Plug Types:	DB-9 connectors
RF Input to Receiver:	TNC
Power Connector :	3 pin snaplock

Port A	(DCE)	**PortB**	(DCE)
1	CANL_A	1	CANL_B
2	TXDA*	2	TXDB*
3	RXDA	3	RXDB*
4		4	PPS
5	GNDt	5	GND*
6		6	EVENT
7	CTSA	7	CTSB/42z
8	RTSA	8	RTSB/42`
9	CANH_A	9	CANH_B

Optional Features.

- Everest multipath reduction.
- 1OHz update rate

General 12 parallel channels Tracks up to 12 satellites, L1 GPS L-band satellite differential correction receiver (requires subscription from independent provider)

Update Rate 1Hz standard, 10Hz optional

Differential Accuracy Less than 1 metre horizontal RMS Assumes at least 5 satellites, PDOP less than 4 and RTCM SC-104 standard format broadcast from a Trimble 4000RS or equivalent reference station

Time to first fix <30 seconds, typical

NMEA messages ALM, CiGA*, GLL, GSA*, GSV, VTG*, ZDA* * *Default Messages*

Power 5 Watts, max @ 10 to 32VDC

Physical Characteristics

Weight (approx.) 0.75kg

Display 3 LED indicators

Control Power switch and Command Port

Approvals TBA

For further information contact:

The OmniSTAR system is available world-wide from:

†*OmniSTAR Pty Ltd reserves the right to change specifications at any time*