

BBG-D2F-SPW1-RM



Serial to Fiber Converter

Description

The BBG-D2F-SPW1-RM (D2F) is a stand-alone network interface system which provides data conversion between serial messages over RS-422, and NAVSSI via Fiber.

The D2F provides data channel isolation for three (3) serial input channels of attitude, time, latitude, longitude, heading, and speed, and date/time information.

The D2F is factory configurable to customer requirements for easy field installation.

Applications

- Stabilized Glide Slope Indicator (SGSI)
- Radar Systems (antenna azimuth)
- Navigation Systems (gyrocompass, speedlog, course, pitch, and roll)
- Meteorology Instruments (wind speed and direction)
- Many Others

Features

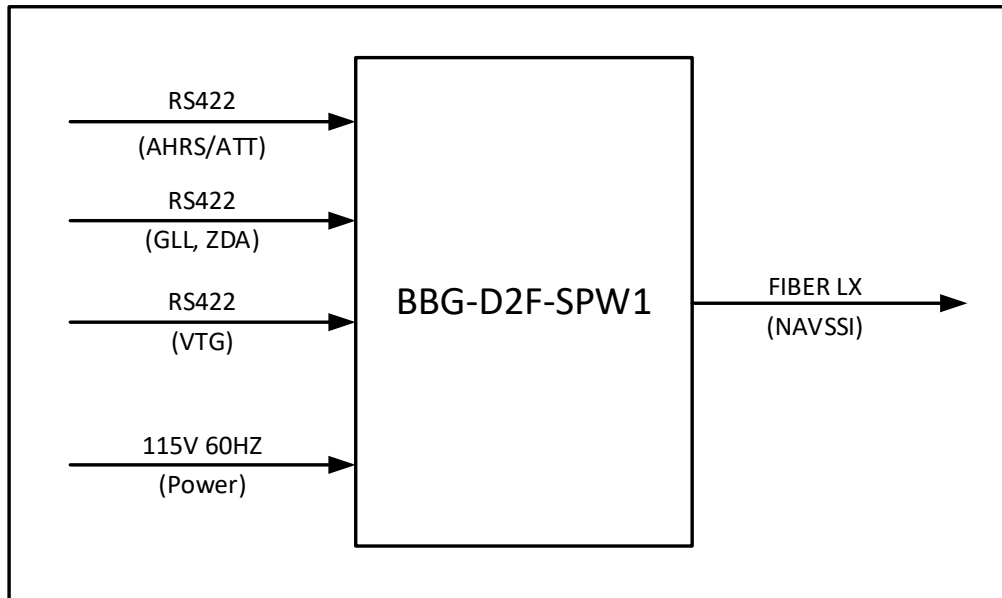
- Multicast LX Fiber I/O
- Three (3) Isolated Inputs
- RS-422, NAVSSI Protocols
- Multiple message parsing and recombining
- Custom Serial Data Formats and Frequencies are available upon request

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Chart



Technical Specifications

Parameter	Value	Units
Inputs		
Power	115	Volts AC
	60	Hertz
	3	Amp
Serial Protocol	RS-422	
Serial Ports	3	Ports
Channel 1	RS-422	ATT/AHRS (Binary)
Channel 2	RS-422	GLL, ZDA (NMEA-0183/RS422)
Channel 3	RS-422	VTG (NMEA-0183/RS422)
Outputs		
Ethernet	1000Base-LX	
Message Protocol	NAVSSI	OD19
Output Update Rate	200	Hz
Temperature Range		
Operating	-27.8 to +65.6	C°
Storage	-65 to +150	C°
Weight	30	lbs
Dimensions	5.13 H x 19 W x 19.88D	In
	13.03 H x 48.26 W x 47.75 D	Cm

**Note: Internal cables are not low-smoke or halogen free*



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OVERVIEW

The BBG-D2F-SPW1-RM is a stand-alone network interface system that converts and combines RS-422 serial data and retransmits via Fiber. The D2F operates on 115 Volt, 60 Hz AC power, but other options are available. The D2F accepts data on three independent optically isolated serial inputs, and outputs over one Fiber connection. Custom inputs and outputs are available upon request.

Examples of uses include: stabilized glide slope indicators (SGSI), radar systems, (antenna azimuth), navigation systems (gyrocompass, speed log, course, pitch, and roll), industrial processes (position, velocity), and meteorology instruments (wind speed and direction).

INPUTS/OUTPUTS

Input

The BBG-D2F-SPW1-RM provides three (3) isolated input channels of RS-422 data. The BBG-D2F-SPW1-RM requires 115VAC 60Hz power. The inputs are capable of 4,800 to 115,200 bits per second.

Unit is factory configurable to accept ATT or AHRS binary messages for course data. Additional formats may be available upon request.

Fiber Channel Output

The D2F provides one channel of a network based 1000BaseLX protocol output. The output is factory configured to transmit or receive specific message structures as required by the customer.



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CONNECTION LIST

Inputs and outputs are available on terminal blocks through stuffing glands, and military connectors. Connections are as described below:

POWER

I/O CONNECTOR TYPE: TERMINAL BLOCK

Signal	Connection
115 VAC 60Hz (Fused at 3.15 Amp)	TB1-1
115 VAC 60Hz (Fused at 3.15 Amp)	TB1-2
Safety/Shield Ground	TB1-3

SERIAL

I/O CONNECTOR TYPE: D38999/24WE26SN

Signal	Connection
CHANNEL 1 RS-422 A INPUT (AHCS)	PCB2-TB1-2
CHANNEL 1 RS-422 B INPUT (AHCS)	PCB2-TB1-1
CHANNEL 2 RS-422 A INPUT (VTG, GLL)	PCB2-TB1-4
CHANNEL 2 RS-422 B INPUT (VTG, GLL)	PCB2-TB1-3



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J3 FIBER

I/O CONNECTOR TYPE: RPT2346113/040 (D38999/24WC4BN)

I/O TERMINAL TYPE: M29504/05-4046 (SOCKET)

CONNECTOR MATE: RPT2346113/040 (D38999/26WC4AN)

I/O TERMINAL TYPE: M29504/04-4040 (PIN)

BACKSHELL: M85049/1813W03

Signal	Terminal
TX (OUTPUT)	J3 – A
RX (INPUT)	J3 – B
SPARE	J3 – C
SPARE	J3 - D

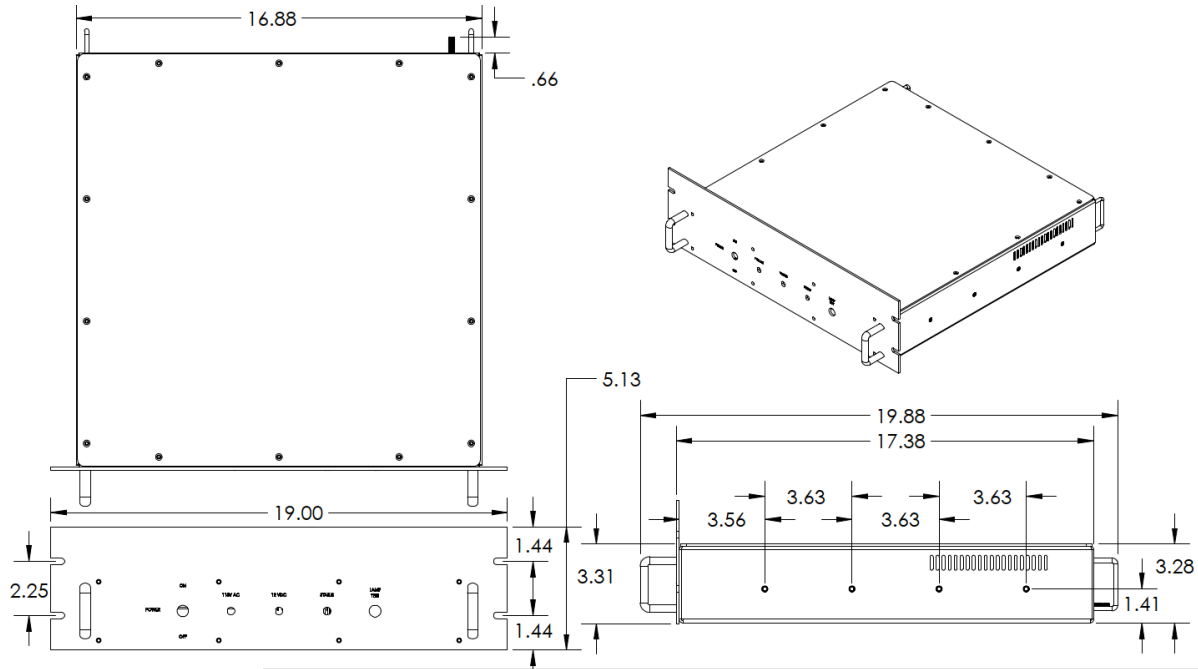


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Mechanicals



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		UNLESS OTHERWISE SPECIFIED:	NAME	DATE
		DIMENSIONS ARE IN INCHES	DRAWN	
		TOLERANCES:	CHECKED	
		FRACTIONAL ±	ENG APPR.	
		ANGULAR: MACH ± BEND ±	MFG APPR.	
		TWO PLACE DECIMAL ±	Q. A.	
		THREE PLACE DECIMAL ±	COMMENTS:	
		INTERPRET GEOMETRIC TOLERANCING PER:		
		MATERIAL		
NEXT ASSY	USED ON	FINISH		
APPLICATION		DO NOT SCALE DRAWING		

TITLE:		
BBG-D2F-SFP1-RM		
SIZE	DWG. NO.	REV
A	DATASHEET DWG	
WEIGHT:		SHEET 1 OF 1



NOTES



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