

1:16 Pulse + NMEA Multiplexer

Introduction:

The **VCL-2486-M 1:16 1PPS (Pulse Per Second) + NMEA Multiplexer** is a compact and cost-effective solution to provide up to 16 1PPS NMEA-0183 outputs. VCL-2486-M 1:16 1PPS + NMEA Multiplexer takes 1 PPS and one NMEA-0183 as input options to provide up to 16 1PPS outputs or 8 1PPS + 8 NMEA outputs.

The **VCL-2486-M 1:16 1PPS + NMEA Multiplexer** may be used to multiply 1 x 1PPS to 16 x 1PPS signals or 1 x 1PPS and 1 x NMEA-0183 to 8 x 1PPS and 8 x NMEA-0183 outputs.



Features and Highlights:

- Multi-service platform – User selectable output modules
- Up to 6 User-selectable output modules (Add any 4 output cards, in any combination Please specify in order)
 - Up to 16 x IRIG-B Unmodulated outputs (RS422/ RS485, RS232)
 - Up to 16 x IRIG-B Unmodulated outputs (BNC)
 - Up to 8 x NMEA-0183 outputs (RJ45)
 - Up to 16 x 1 PPS outputs (BNC)
 - Up to 4 x 1 PPS outputs (ST)
- DC or AC Power supply options
- Nanosecond Time Accuracy to Input Pulse or NMEA
- The delay between the input and output 1PPS signals is under 20 ns (20 nanoseconds).
- Transparent to input pulse. output pulse will be synchronized to the input pulse.
- DC or AC Power supply options
- Unmodulated IRIG-B Format: B004
- Modulated IRIG-B Format: B124.

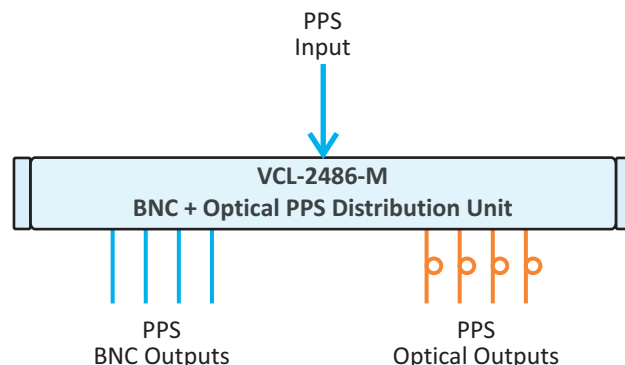
Synchronization Inputs:

Inputs	Number of Inputs	Connector
1 PPS / Pulse	1	BNC
NMEA-0183 (ToD)	1	DB-9 (F)

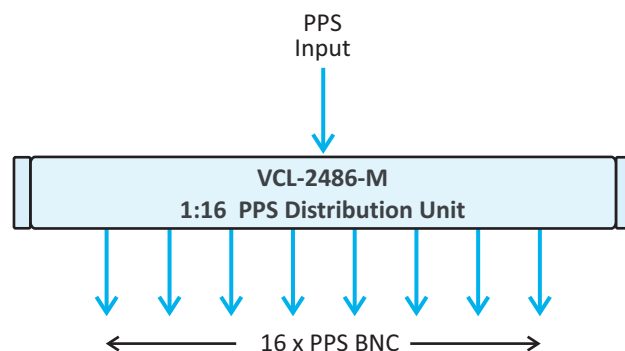
Outputs:

Outputs	Number of Outputs	Connector
Pulse, Phase-locked To Input Pulse	4/8/12/16	BNC
ToD (Time-Of-Day) output compliant to NMEA 0183	2/4/6/8	RJ45
Optional Pulse Out	1/2/3/4	ST

Application Diagram:



** Application Diagram #1 **



** Application Diagram #2 **

Technical Specification

PPS Output Interface

PPS Output interface	Number of Outputs	Connector
1PPS, phase-locked to GPS / GNSS	4 outputs per card	BNC
Maximum cards	Up to 4 cards per chassis	BNC
Maximum outputs	16 outputs per chassis	BNC

PPS + NMEA output interface

PPS + NMEA Outputs	Number of interface	Connector
PPS, phase-locked to GPS / GNSS	2 outputs per card	BNC
NMEA-0183	2 outputs per Card	RJ45
Maximum cards	Up to 4 outputs cards per Chassis	8 x BNC 8 x RJ45
Maximum outputs	8 x PPS outputs & 8 x NMEA Outputs	8 x BNC 8 x RJ45

Technical Specification

IRIG-B (Modulated) output interfaces

IRIG-B (Modulated) Output interface	Number of Outputs	Connector
IRIG-B (Modulated) Outputs	2 outputs per card	RJ45
Maximum cards	Up to 4 cards per chassis	8 x RJ45
Maximum outputs	Up to 8 outputs per Chassis	8 x RJ45

IRIG-B (Unmodulated) output interfaces

IRIG-B (Unmodulated) Output interface	Number of Outputs	Connector
IRIG-B (Unmodulated) Outputs	4 outputs per Card	BNC
Maximum cards	Up to 4 cards per chassis	16 x BNC
Maximum outputs	Up to 16 outputs per chassis	16 x BNC

IRIG-B (Unmodulated RS422, RS485, RS232) output interfaces

IRIG-B (Unmodulated) Output interface	Number of interface	Connector
IRIG-B (Unmodulated) Outputs RS422, RS485, RS232	4 outputs per card	Terminal
Maximum cards	Up to 4 cards per chassis	Terminal
Maximum outputs	Up to 16 outputs per Chassis	Terminal

Optical Pulse card

Optical Pulse Output interface	Number of Outputs	Connector
Optical Output	1 outputs per Card	ST
Maximum cards	Up to 4 cards per chassis	4 x ST
Maximum outputs	Up to 4 outputs per Chassis	4 x ST

Power Consumption:

- < 10W at ambient (steady state 24°C)

Power Supply Options:

- AC (100V AC to 240V AC, 50/60 Hz)
- DC (24V DC, 48V DC, 110V DC to 220V DC)

Environmental (Equipment):

Operational	-10°C to +60°C (Typical: +25°C)
Cold start	0°C
Storage	-20°C to +70°C
Humidity	95% non-condensing
Cooling	Convention Cooled. No cooling fans are required.

Mechanical Specifications:

H x W x D	44 x 485 x 276 (mm)
Weight	2.2 Kg
Rack Mount:	19" rack mounting options

Ordering Information (Base Unit):

Part No.:	Description
VCL-2486-M	VCL-2486-M 1:16 Pulse + NMEA Multiplexer 19-Inch, Rack mountable [supports upto 4 Cards] Installation Kit: System Core Cables, Mounting Hardware, Documentation, User Manual

Add Interface:

2485-MOD -IRIGB	2 x Modulated IRIG-B interface (RJ45) Card (4 Cards (Max) per Chassis)
2485-1PPS -NMEA	2 x 1PPS (2xBNC) + 2 x NMEA (RJ45) interface Card (4 Cards (Max) per Chassis)
2488-UNMOD -IRIGB	4 x Unmodulated IRIG-B interface (BNC) Card (4 Cards (Max) per Chassis)
2444-485	4 Port x Unmodulated IRIG-B [RS485/RS422] interfaces (8X2 M Terminal Block) (4 Cards (Max) per Chassis)
2447-232	4 Port x Unmodulated IRIG-B [RS232] interfaces (8X2 M Terminal Block) (4 Cards (Max) per Chassis)
2482-P	4 x 1PPS Interface (BNC) Card (4 Cards (Max) per Chassis)
2727-PPS	1xPPS Optical (ST) (4 Cards (Max) per Chassis)

Add Power Supply:

AC220	1 x 110-240V AC Power Supply Input
DC048	1 x 48V DC Power Supply Input

Technical specifications are subject to changes without notice.
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