

### Product Overview:

The IR-140 is a 1PPS/IRIG-B over multi-mode optical fiber distributor unit which can either be used to convert a 1PPS/IRIG-B signal into an optical signal, or an optical signal to multiple IRIG-B / 1PPS outputs. It is available as IR-140-T and IR-140-R.



**IR-140-T, 1PPS/IRIG-B - Transmitter:** converts a 1PPS/ IRIG-B Input and transmits over a 850nm multi-mode optical fiber.

**IR-140-R, 1PPS/IRIG-B - Receiver:** receives an Optical 1PPS/IRIG-B Input over 850nm multi-mode optical fiber and converts the optical input to 4 x 1PPS / IRIG-B BNC outputs.

The IR-140-R may also be used in conjunction with either IR-140-T or IR-316 units to transmit and distribute a 1PPS or IRIG-B signal over 850nm multi-mode optical fiber links.

### Features:

- Transparent to Optical 1PPS / IRIG-B Input
- Nanosecond accuracy output
- Phase-synchronized output
- 48V DC or AC Power Supply options

### Power Input and Consumption:

- 15V DC to 60V DC (48V DC nominal)
- < 10W at ambient (steady state 24°C)

### Power Supply Options:

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

### Regulatory Compliance:

- RoHS
- CE Marking
- Complies to IEEE and IEC standards
- Transportation ETS 300 019 Class 2.3

### IR-140-T Inputs:

Input Type	Number of Inputs	Connector
1PPS / IRIG-B Pulse	1	BNC

### IR-140-T Outputs:

Output Type	Number of Outputs	Connector
Optical 1PPS / IRIG-B	1	ST

### IR-140-R Inputs:

Input Type	Number of Inputs	Connector
Optical 1PPS / IRIG-B	1	ST

### IR-140-R Outputs:

Output Type	Number of Outputs	Connector
1PPS/ IRIG-B	4	BNC

### 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

### Ordering Information:

#### Base Unit:

Part No.:	Description
<b>IR-140-T</b>	1PPS/IRIG-B Transmitter 1 x 1PPS/IRIG-B Input (BNC) 1 x 1PPS/IRIG-B Optical Output (ST) DIN Rail Installation Kit includes Mounting, Hardware, Documentation, User Manual
<b>IR-140-R</b>	1PPS/IRIG-B Receiver 1 x Optical (1PPS/IRIG-B Input - ST) 4 x 1PPS/IRIG-B Outputs (BNC) DIN Rail Installation Kit includes Mounting, Hardware, Documentation, User Manual

Add Optional External Adaptor (if required):

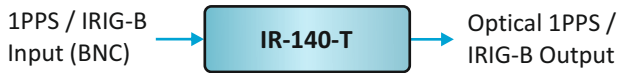
<b>AC</b>	100V AC to 240V AC, 50/60 Hz) to 24V DC External Adapter
<b>DC</b>	110V DC / 220V DC to 24V DC External Adapter

**Standards & Compliance:**

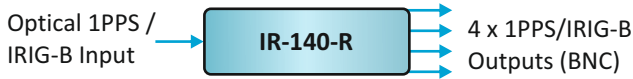
- IEC - EMC – Certified to EN 55032: 2005 / CISPR 32 Class A, EN 55024:2005, IEC 61000-4-2
- CE – 2001/95/EC, 2006/95/EC, EN60950-1, EN61000-6-2, EN61000-6-4
- FCC – FCC Part 15 Class A: Conducted Emission test on Power Line
- FCC Part 15 Class A: Radiated Emission >1 GHz FCC, 6 GHz, on Power Line.

**Application Diagram:**

**Block Diagram - IR-140-T:**



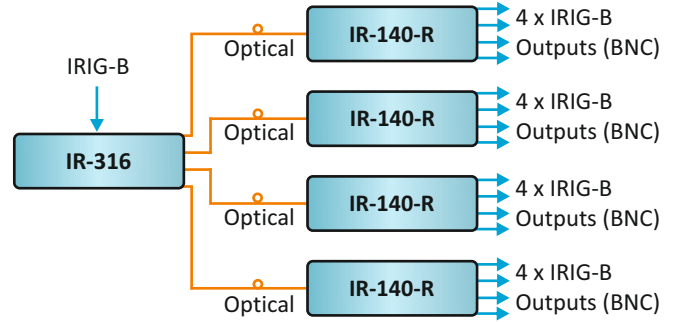
**Block Diagram - IR-140-R:**



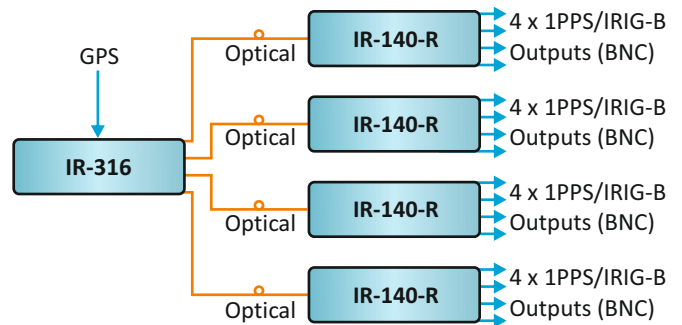
**Application Diagram #1:**



**Application Diagram #2:**



**Application Diagram #3:**



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