DY-IMC-V111ET-TB

Industrial Extended Media Converter with 1 x 10/100BaseT(X) to 1 x VDSL2 Twisted Pair Socket

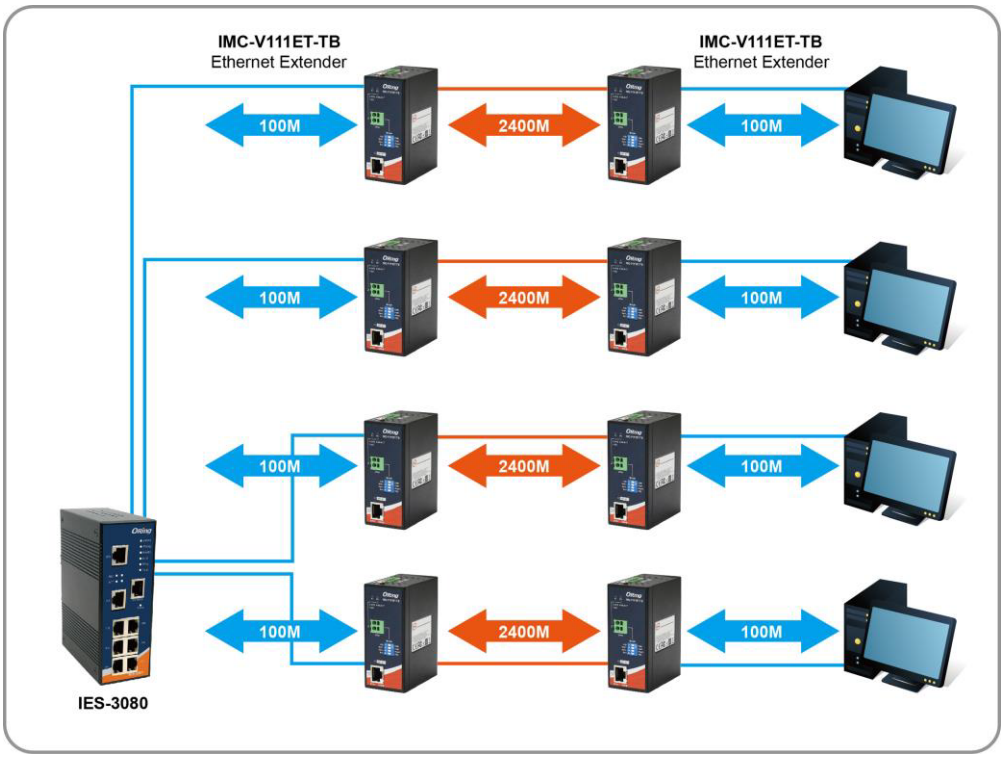
■ Features

- Extend Ethernet distance up to 2,400m over 26AWG cable
- Cost-effective CO/CPE selectable via DIP switch
- Supports 2-wired transmission
- Redundant, reverse polarity protection 12~48VDC power inputs with Terminal Block
- Selectable Asymmetric and Symmetric mode for transmission of upstream and downstream signals
- Selectable SNR margin
- Ethernet port support Auto MDI/MDI-X switching function
- Ethernet port support full/half duplex operation
- Rigid IP-30 housing design
- DIN-Rail and wall mounting enabled
- Dual Power Inputs for Redundancy
- NEMA TS-2 Outdoor



Introduction

The DY-IMC-V111ET-TB is a cost effective solution for extending an Ethernet Connection beyond its inherent distance limitation. (100 Meters / 328 Feet) The DY-IMC-V111ET-TB can extend the distance to 2,400 Meters / 7,874 Feet using 26 AWG cabling. The device contains a switching architecture with 1 RJ-45 10/100 Mbps Ethernet port and one Asymmetric or Symmetric Ethernet over VDSL2 port; equiped with a terminal block connector that supports 2 wire transmission. The terminal block is for easy fiel termination of twisted pair wiring. The DY-IMC-V111ET-TB has a temperature range of -40 ~ +85C, ideal for outdoor use and harsh operating environments.



Twisted Pair Media Converter Examples - 2600 Meter Total Length

DYMEC
AMERICAN INDUSTRIAL
Industrial Ethernet Networks for SCADA, Traffic, Sub-Stations, Transportation & Public Safety
DYMEC.com

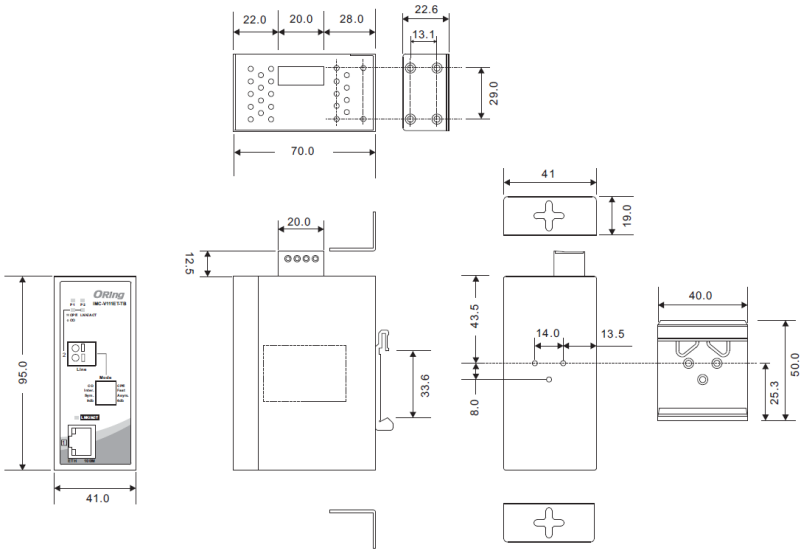
Specifications

DYMEC Extended Ethernet Twisted Pair Converter	DY-IMC-V111ET-TB		
Physical Ports			
100Base-TX Port in RJ45 Auto MDI/MDIX	1		
100Mbps Ethernet Extender Ports in Terminal Block	1 (Supports 2 Wire)		
Technology			
Ethernet Standards	IEEE 802.3u for 100Base-TX, VDSL ITU-T G.993.1, VDSL2 ITU-T G.993.2		
Processing	Store-and-Forward		
Performance			
VDSL speed	Refer to Appendix A.		
LED Indicators			
Power Indicator	Green : Power LED x 2		
CO/CPE mode Indicator	Amber LED for CPE mode.		
100Base-T(X) RJ45 Port Indicator	Green LED for Link/ACK indicator.		
Ethernet Extender Indicator	Green LED for Link/ACK indicator.		
DIP Switch			
DIP-Switch Setting	DIP-switch 1 for CPE/CO (Slave/Master) mode select :	(ON) CPE mode	(Off) CO mode
	DIP-switch 2 for fast/interleaved mode select :	(ON) Fast mode	(Off) Inter. mode
	DIP-switch 3 for Asymmetric/Symmetric mode select :	(ON) Asym. mode	(Off) Sym. mode
	DIP-switch 4 for SNR mode select :	(ON) 6db mode	(Off) 9db mode
Power			
Input power	Dual 12 ~ 48VDC power inputs.		
Power consumption (Typ.)	4.50 Watts		
Overload current protection	YES		
Physical Characteristics			
Enclosure	IP-30		
Dimension (W x D x H)	41 (W) x 70 (D) x 95.5 (H)mm (1.61 x 2.76 x 3.76 inch)		
Weight (g)	272g		
Environmental			
Storage Temperature	-40 to 85°C (-40 to 185°F)		
Operating Temperature	-40 to 85°C (-40 to 185°F)		
Operating Humidity	5% to 97% Non-condensing		
Regulatory Approvals			
EMI	FCC Part 15, CISPR (EN55022) class A		
EMS	EN61000-4-2 (ESD), EN61000-4-3 (RS), EN61000-4-4 (EFT), EN61000-4-5 (Surge), EN61000-4-6 (CS), EN61000-4-8, EN61000-4-11, NEMA TS-2, IEEE		
Shock	IEC60068-2-27		
Free Fall	IEC60068-2-32		
Vibration	IEC60068-2-6		
Warranty	5 years		

DYMEC
AMERICAN INDUSTRIAL
Industrial Ethernet Networks for SCADA, Traffic, Sub-Stations, Transportation & Public Safety
DYMEC.com

Dimensions

Unit=mm



Ordering Information

	Model Name	Description
Available Model	DY-IMC-V111ET-TB	Industrial VDSL extended media converter with 1x100Base-TX to 1xEthenet extender, Terminal block socket

DYMEC
AMERICAN INDUSTRIAL
Industrial Ethernet Networks for SCADA, Traffic, Sub-Stations, Transportation & Public Safety
DYMEC.com

Appendix A

Loop Length (m, PE **0.4mm** loop)	Annex-17a-A-17a-eu32_I-8/2			
	Downstream		Upstream	
	ActDataRate (Mbps)	Noise Margin Reported (dB)	ActDataRate (Mbps)	Noise Margin Reported (dB)
0	101.0	14.8	52.5	7.2
200	101.0	12.4	52.5	7
400	88.2	6.6	45.8	6.8
600	60.5	5.9	30.4	6.3
800	44.6	6.1	12.7	6.5
1000	33.5	6.3	5.6	6.1
1200	28.4	7.4	2.1	6
1400	21.5	7.5	0.7	6
1600	16.8	7.1	0.7	6.3
1800	12.9	7.4	0.7	6.2
2000	9.8	7.6	0.8	6.1
2200	7.7	7.4	0.8	6.1
2400	5.9	7.4	0.7	6.2

Loop Length (m, PE **0.4mm** loop)	Annex-B-B7-9_I-8/2			
	Downstream		Upstream	
	ActDataRate (Mbps)	Noise Margin Reported (dB)	ActDataRate (Mbps)	Noise Margin Reported (dB)
0	71.7	7.1	76.4	7.1
200	69.6	7.7	74.7	7.1
400	60.0	7.1	65.3	6.9
600	46.8	6.4	44.6	6.5
800	37.8	6.8	19.6	6.1
1000	29.5	6.3	9.1	5.7
1200	26.1	6.8	4.2	5.7
1400	22.2	7.8	1.2	5.6
1600	18.0	7.4	0.7	6.2
1800	14.5	7.2	0.7	6.2
2000	11.5	7.2	0.8	5.9
2200	9.3	7.3	0.7	6
2400	7.4	7.3	0.6	6.1

Loop Length (m, PE **0.4mm** loop)	Annex-30a-A-30a-eu32_I-8/2			
	Downstream		Upstream	
	ActDataRate (Mbps)	Noise Margin Reported (dB)	ActDataRate (Mbps)	Noise Margin Reported (dB)
0	101.0	25	101.0	8.2
200	101.0	19.4	97.1	6.3
400	100.9	6	53.3	5.7
600	60.8	5.8	32.8	7
800	39.3	5.6	15.4	8.9
1000	31.9	6.3	5.5	7
1200	29.2	7.2	2.1	6.1

Loop Length (m, PE **0.4mm** loop)	Annex-B-B7-10_I-8/2			
	Downstream		Upstream	
	ActDataRate (Mbps)	Noise Margin Reported (dB)	ActDataRate (Mbps)	Noise Margin Reported (dB)
0	101.0	17.6	101.0	17.4
200	101.0	10.2	101.0	17.8
400	64.8	6.3	96.2	6.8
600	46.9	5.9	51.5	6.6
800	32.6	8.1	21.0	7.7
1000	29.2	6.3	9.1	6
1200	25.7	7.5	4.9	5.6

