

SERIES DL221

10/100 ETHERNET TRANSCEIVER

USER MANUAL

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ETHERNET 10/100 TRANSCEIVER SERIES DL221/DL221A

REV B4.3

FOR AC INPUT

FRONT PANEL INDICATORS –

POWER – ON WHEN UNIT HAS POWER

100M – ON WHEN TWISTED PAIR IS WORKING AT 100Mbps
OFF WHEN TWISTED PAIR IS WORKING AT 10Mbps

LINK FX – ON WHEN FIBER OPTIC LINK PRESENT

TP – ON WHEN TWISTED PAIR LINK PRESENT

FDX – FULL DUPLEX. BOTH ARE LIT WHEN FIBER OPTIC LINK
AND TWISTED PAIR ARE OPERATING AT FULL DUPLEX.

NOTE- FIBER OPTIC LINK IS ALWAYS OPERATING AT FULL DUPLEX.

POWER • • 100M

LINK FX • • TP

FDX • ••

10/100 BASE – TX

100BASE TX PORT

RJ-45 CONNECTOR

HALF/FULL DUPLEX SUPPORT VIA AUTO-NEGOTIATION OR MANUAL

100m OVER UTP/STP 100ohm CAT.5 CABLE

X II

MDI-II/MDI-X SELECTION

X – CROSS OVER CABLE

II – STRAIGHT CABLE

MODE SETUP

NOTE - SWITCH 4 MUST BE IN THE ON/UP POSITION FOR UNIT TO OPERATE. AFTER CONFIGURATION OF UNIT POWER MUST BE RESET. THIS CAN BE DONE BY REMOVING POWER TO UNIT OR TOGGLE SWITCH 4 DOWN THEN UP.

SETTINGS-

AUTO-NEGOTIATION - SW 1, SW 2, SW 3 DOWN/OFF
10M HALF DUPLEX - SW 1 UP/ON, SW 2, SW 3 DOWN/OFF
10M FULL DUPLEX - SW 1 UP/ON, SW 2 DOWN/OFF, SW 3 UP/ON
100M HALF DUPLEX - SW 1 UP/ON, SW 2 UP/ON, SW 3 DOWN/OFF
100M FULL DUPLEX - SW 1 UP/ON, SW 2 UP/ON, SW 3 UP/ON

TROUBLESHOOTING

POWER LED NOT LIT - CHECK POWER SUPPLY CABLE TO MAIN POWER SUPPLY. CHECK AC INPUT SOURCE. CHECK SW 4 – MUST BE UP/ON POSITION.

LINK FX LED NOT LIT – CHECK LIGHT LEVEL IN AND OUT OF UNIT. REFER TO THE SPEC. LABEL FOR PROPER LEVEL.

TP LED NOT LIT - CHECK SETTING FOR STRAIGHT / X-OVER CABLE. RESET POWER.

FOR 5VDC INPUT

FRONT PANEL INDICATORS –

RWR – ON WHEN UNIT HAS POWER

R – ON WHEN TWISTED PAIR IS WORKING AT 100Mbps
OFF WHEN TWISTED PAIR IS WORKING AT 10Mbps

L – ON WHEN FIBER OPTIC LINK PRESENT

A – ON WHEN TWISTED PAIR LINK PRESENT

FX TX FDX – FULL DUPLEX. LIT WHEN FIBER OPTIC LINK
AND TWISTED PAIR ARE OPERATING AT FULL DUPLEX.

NOTE- FIBER OPTIC LINK IS ALWAYS OPERATING AT FULL DUPLEX.

RWR R

- •
- • L/A
- • FDX

FX TX

10/100 BASE – TX

100BASE TX PORT

RJ-45 CONNECTOR

HALF/FULL DUPLEX SUPPORT VIA AUTO-NEGOTIATION OR MANUAL

100m OVER UTP/STP 100ohm CAT.5 CABLE

NODE HUB MDI-II/MDI-X SELECTION

NODE - CROSS OVER CABLE

HUB - STRAIGHT CABLE

SETTINGS-

AUTO-NEGOTIATION - SW 1, SW 2, SW 3 DOWN/OFF

10M HALF DUPLEX - SW 1 UP/ON, SW 2, SW 3 DOWN/OFF

10M FULL DUPLEX - SW 1 UP/ON, SW 2 DOWN/OFF, SW 3 UP/ON

100M HALF DUPLEX - SW 1 UP/ON, SW 2 UP/ON, SW 3 DOWN/OFF

100M FULL DUPLEX - SW 1 UP/ON, SW 2 UP/ON, SW 3 UP/ON

NOTE- AFTER CONFIGURATION OF UNIT POWER MUST BE RECYCLED.

TROUBLESHOOTING

RWR LED NOT LIT - CHECK POWER SUPPLY. ENSURE OUTPUT 5VDC.

L LED NOT LIT - CHECK LIGHT LEVEL IN AND OUT OF UNIT. REFER TO THE SPEC. LABEL FOR PROPER LEVEL.

A LED NOT LIT – CHECK TWISTED PAIR CONNECTIONS.

SPECIFICATIONS

Standard Compliance:

IEEE802.3u, 100BaseTx, 100BaseFx, 10BaseT

100BaseTx Port:

RJ-45 connector

Half/full duplex support via auto-negotiation or manual
100m over UTP/STP 100 ohm cat.5 cable

Auto-polarity correction

MDI-II/MDI-X selection

10BaseT (switch selected)

100BaseFx Port:

1300nm SC connectors. Optional Single Fiber (DL221A)

Distance:

> 100 km (DL221/SMSP)

Full/half duplex switch selected

Diagnostics:

Per Channel:

Full duplex, Link, Activity - 100BaseFx side

Per System:

Power (dual, if redundant PS present)

Controls:

Fiber side:

FDX/HDX

Copper side:

10/100 Mbps, FDX/HDX, Auto sensing disable/enable

Environmental/Physical:

Power supply:

100/240 VAC.50/60 Hz

5VDC wall

Power consumption:

5 W max.

Operating temperature:

0°-45°C (32°-113°F)

Storage temperature:

-30° - 65°C (22° - 149°F)

Humidity:

10-90% non-condensing

NOTE - Specifications subject to change without prior notice.

PART NUMBER	DESCRIPTION	ATTEN.	MAX. DISTANCE
DL221-XYZ	Transceiver, Multimode, 2 fibers	9dB	6km
DL221/SM-XYZ	Transceiver, Singlemode, 2 fibers	9dB	25km
DL221/SMHP-XYZ	Transceiver, Singlemode , 2 fibers	18dB	50km
DL221/SMSP-XYZ	Transceiver, Singlemode, 2 fibers	28db	80km
DL221/SMUP-XY5	Transceiver, Singlemode, 2 fibers	28db	110km
DL221A-XYZ	Transceiver, Multimode, 1 fiber	6db	2km
DL221A/SM-XYZ	Transceiver, Singlemode, 1 fiber	9db	25km
DL221A/SM2-XA3	Transceiver, Singlemode, 1 fiber	18db	50km
DL221A/SMHP-XYZ	Transceiver, Singlemode, 1 fiber	18db	50km
DL221A/SMSP-XYZ	Transceiver, Singlemode, 1 fiber	28db	80km

Note:

Specify **X** - packaging of the unit: U-1U rack mount, M-modular, R-card cage rack mount
Specify **Y**- connector type: A-SC/APC, E-SC, B-FC, Z-FC/APC, D- ST
Specify **Z**- wavelength: Multimode 8-850nm, 2-1300nm Singlemode 3-1310nm, 5- 1550nm

Add -M for SNMP management

Add -48 for 48VDC power

For higher optical budgets and distances, CWDM and DWDM systems, contact factory

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