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APPLICATION NOTE AN029

Fibre Optic Communications

Summary

Mega_Link and Mega_Link 2 can be used to communicate using fibre optic cables.

It is easy to interface to a fibre optic modem/media convertor using either RS232 serial or RJ45 Ethernet.

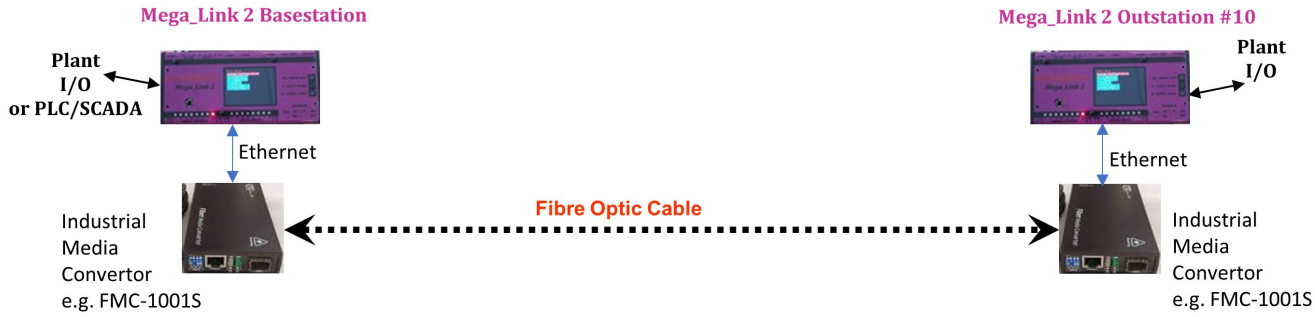
This gives an alternative to the Low Power Radio, 4G and Leased Line/Private Wire communications media traditionally used for telemetry and control.

Fibre optic cables can be ruggedised and are ideal for use in harsh environments to provide a safe, reliable and secure communications media for telemetry and control, e.g. around an industrial site.

Notes:

1. Simple plug-in to RJ45 Ethernet (COM4) on Mega_Link 2.
2. Simple plug-in to RS232 or RS485 (COM3) on Mega_Link.
3. A wide range of off-the-shelf industrial fibre optic media convertors with minimal or no configuration necessary.
4. No ongoing line rental or SIM card costs.
5. Mega_Link and Mega_Link 2 example config files are available upon request.

Mega_Link 2 – Fibre Communications Point-to-Point



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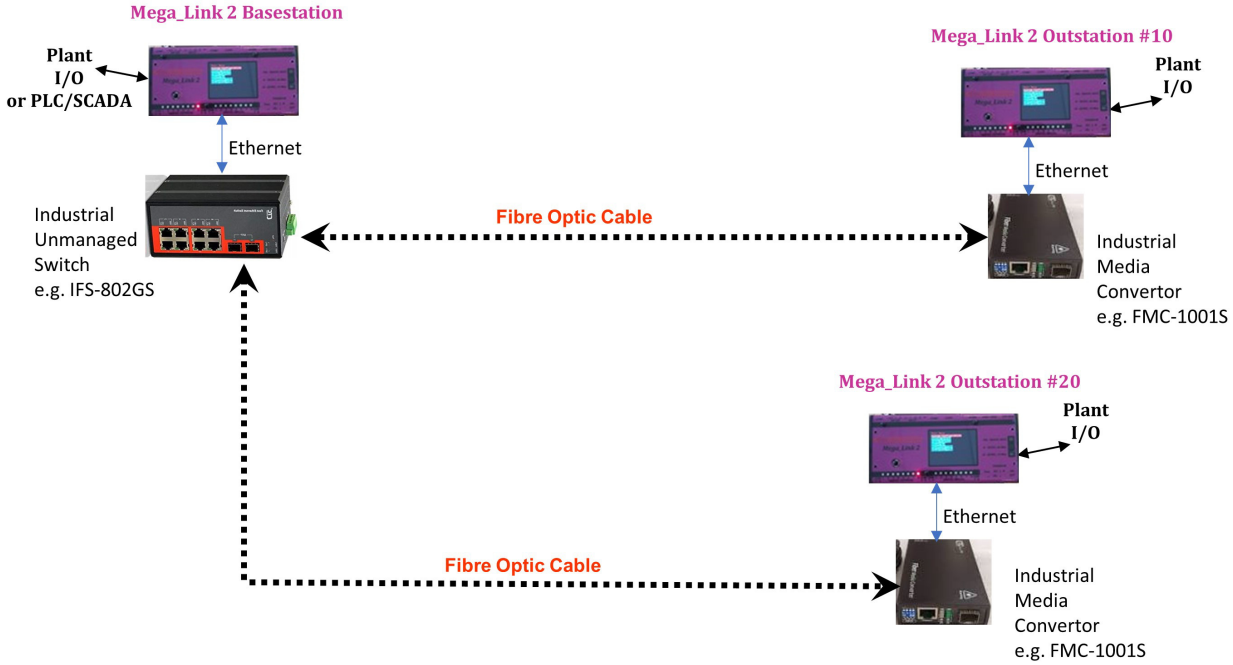
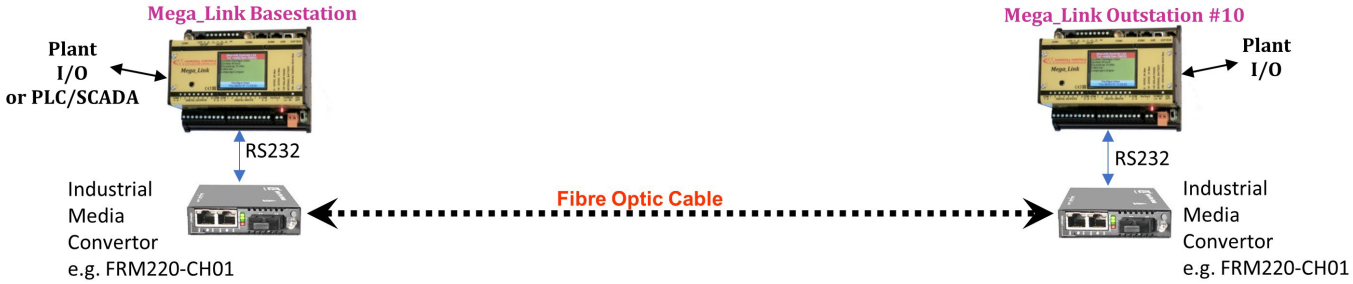
Mega_Link 2 – Fibre Communications Point-to-MultiPoint



Mega_Link – Fibre Communications Point-to-Point



RS232 Interface Cable details

COM3 CAT3 Lead Core Colours	**Signal Name**	**Direction**	**Pin Number on FRM220-CH01 Connector**	
Green	RXD (RS232)	Out	3	RS-232 Data In
White/Blue	TXD (RS232)	In	5	RS-232 Data Out
White/Orange	0V	-	6	Signal Ground