

Specifications

Video Performance*

Video Output Impedance	75 ohm (unbalanced)
Video Output Voltage	1V p NTSC, 1.3Vp PAL
Video Connector	BNC
Frequency Response @ 2dB	10 Hz to 7 MHz (3 dB)
Signal to Noise Ratio	62dB as per RS250C
Diff. Gain (-20°C to +70°C)	< 4 %
Diff. Gain (-30°C to +85°C)	< 7 %
Diff. Phase (-20°C to +70°C)	< 4 °
Diff. Phase (-30°C to +85°C)	< 7 °
Luminance	
Non-Linearity (-20°C to +70°C)	<4%
Luminance	
Non-Linearity (-30°C to +85°C)	<7%
Field Tilt	<2%

Optical Performance

Single mode - Core Diameter	8 - 10u
Optical Connector	FC, ST, SC
Receiving Wavelength	1310 nm
Receiver Sensitivity*	- 34 dBm
Transmitting Light Source	Laser 1550 nm
Optical Power Output	-8 dBm (+/- 2 dBm @ -30 °C to +85 °C)

Data Interface

Data Interface	RS-422 Bi-directional – 4 wire
Data Rate*	Up to 200 Kb/s

* measured with 144S-VT/DX-M1ST or 144SR-VT/DX-M1ST unit as per RS-250C @ 1km single mode optical cable.

Operating Temperature	-30 °C to +85 °C
Dimensions	294mm(L) x 132mm(W) x 27mm(H)
Power Requirements	12 VDC @ 400mA

244S-VR/DX-M2

2Ch. Fiber Optic Video Receiver & 4Ch. RS-422 Data Transceiver

Single mode

Two Fiber Operation

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Introduction :

The Elcommtech 244S-VR/DX-M2 forms part of a singlemode, dual channel/dual fiber video and data fiber optic transmission system. Using frequency modulation and operating as a dual window 1310/1550nm two fiber unit, the 244S-VR/DX-M1 provides the following facilities in a 294mm x 132mm x 27mm free standing module.

Optical Receiver for : 2 x Composite Video signal &
4 x RS-422 Data Channels

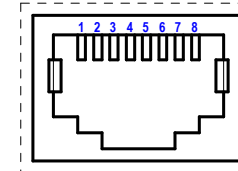
Optical Transmitter for : 4 x RS-422 Data Channels

Indicators :- All indicators are located on the front of the module.

Indicator		
Video Link (Ch1/Ch2)	off	No link – no carrier signal present
	green	link is on – carrier signal present
Video Rx (Ch1/Ch2)	off	No video input or insufficient video signal present
	green	Composite Video signal present
Data Link (Ch1/Ch2)	off	No received optical signal present
	green	Optical signal received
Data Tx1 (Ch1/Ch2)	off	No data signal present at the optical transmitter Ch.1 input
	red	Data signal is present at the optical transmitter Ch.1 input
Data Rx1 (Ch1/Ch2)	off	No data signal present at the optical receiver Ch.1 output
	green	Data signal is present at the optical receiver Ch.1 output
Data Tx2 (Ch1/Ch2)	off	No data signal present at the optical transmitter Ch.2 input
	red	Data signal is present to the optical transmitter Ch.2 input
Data Rx2 (Ch1/Ch2)	off	No data signal present at the optical receiver Ch.2 output
	green	Data signal is available at the optical receiver Ch.2 output

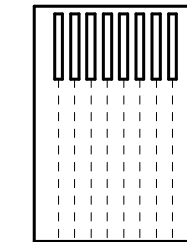
Data Connector Pinouts

Data Port - RJ45 Modular Receptacle

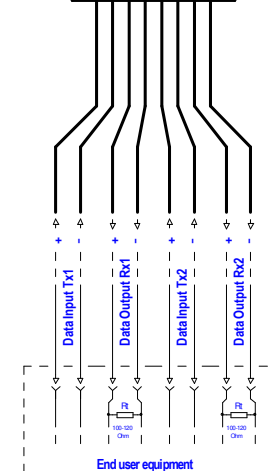


RS-422 Data Port Connector

RS-422	Tx1 (IN1)	Rx1 (OUT1)	Tx2 (IN2)	Rx2 (OUT2)
DATA SIGNAL +	1	3	5	7
DATA SIGNAL -	2	4	6	8



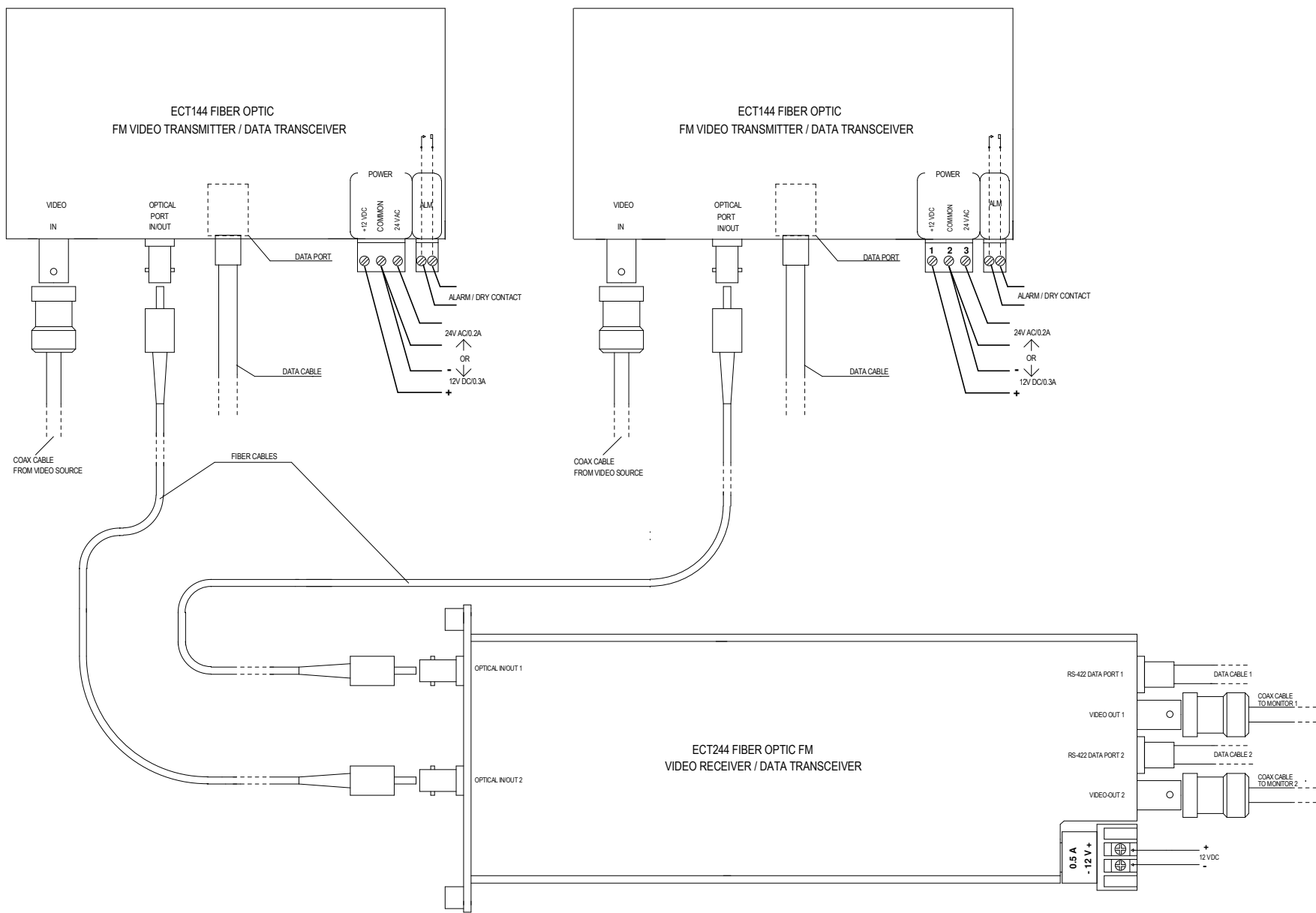
Data Cable - RJ45 Plug



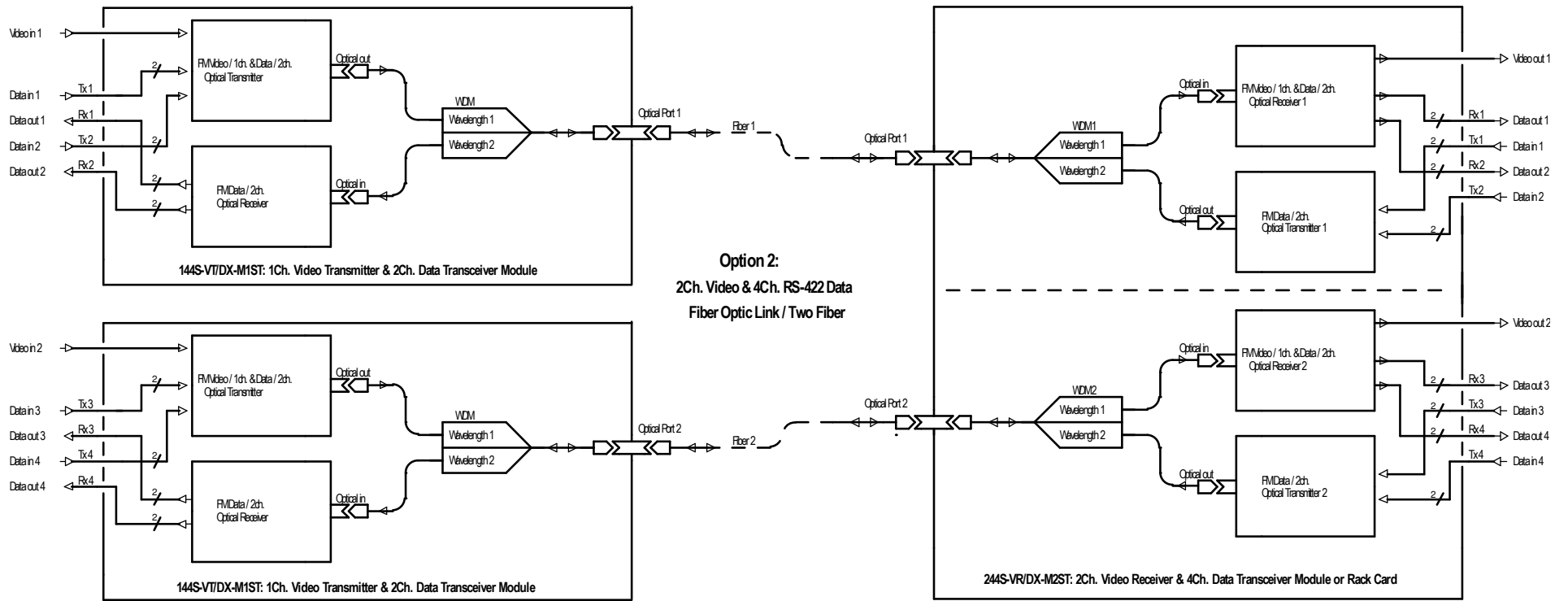
NOTE:
Data receiving lines of end user equipment should be terminated by 100 - 120 Ohm resistors (R), according EIA-422-A RS-422 Data Standard requirements.



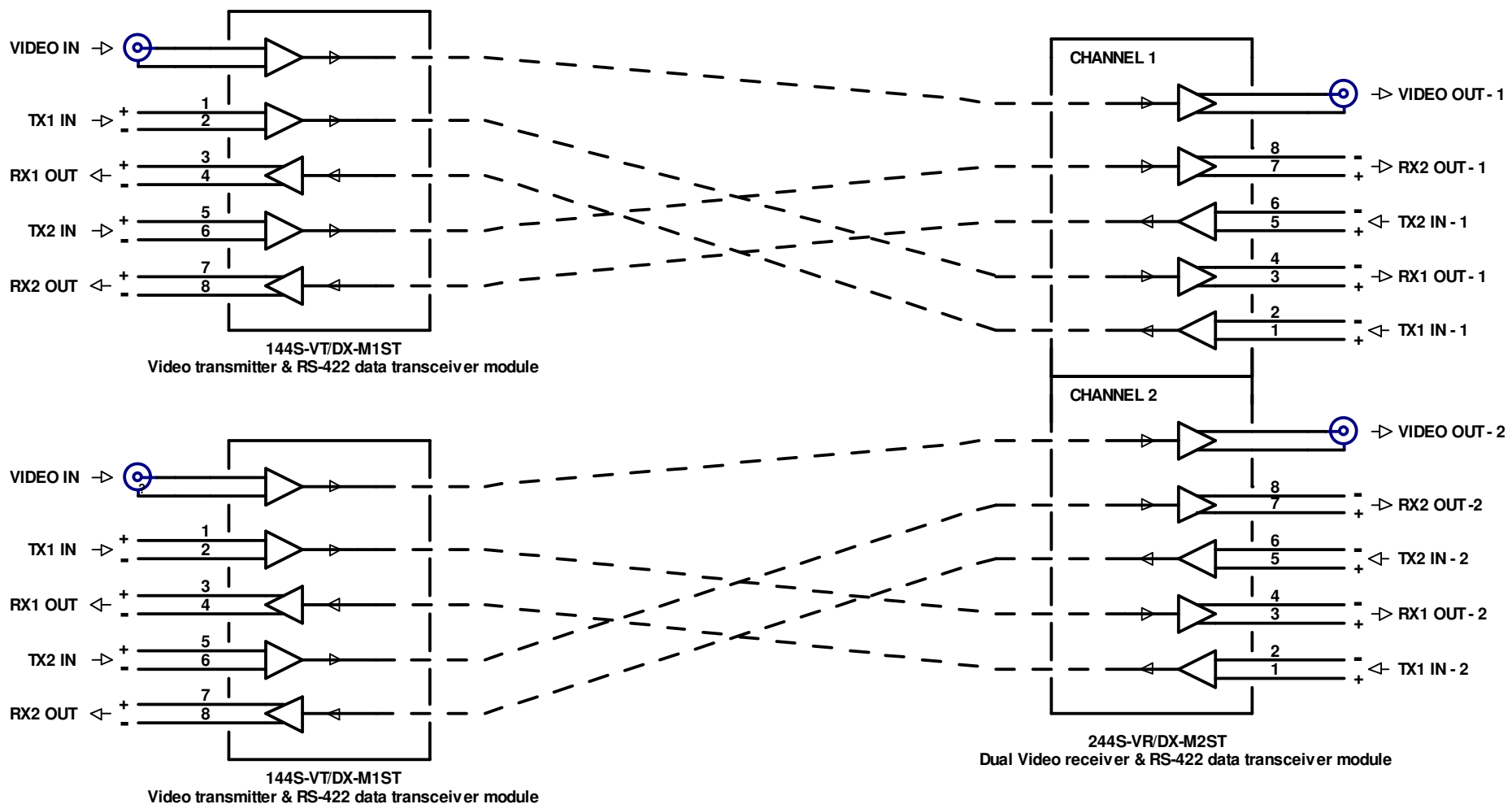
244S-VR/DX-M2 Video Receiver / Data Transceiver
Connections Diagram



**ECT144/244 Video & Data Link
Connection Diagram**



Video & RS-422 Data Fiber Optic Link Configurations
 2 x ECT144 & ECT244 Connections Block Diagram



**ECT144/244 Fiber Optic FM Video & RS-422 Data Optical Link
Communication Logical Diagram**