

# KD-CON™ VIDEO MULTIPLEXER

Analogue / Digital Video & Serial Communications System

The KD-Con™ Video Mux fibre system consists of two rack mountable units that fit the KD-Con™ subsea pod and topside rack. It is an Analogue & Digital Video and serial communications system.

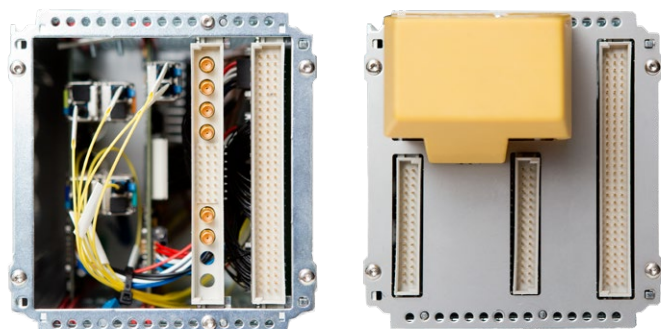
The Video Multiplexer has 8 channels of Pal/NTSC video, 4 channels of High definition Video and 36 bidirectional TTL lines. Backplane design together with all fibre units terminated to a single front plate LC fibre connector, enables easy system swap. Units comes with complete fibre diagnostics, and function as the main fibre diagnostic node for the other KD-Con™ upper card fibre modules.

## FEATURES

- 8 ch NTSC or PAL, 6MHz. 10 bit
- 4ch HD-SDI, SMPTE-292M, SMPTE-259M (720p, 1080i, 1080p, 1.485Gbps/3Gbps) (Option)
- Serial lines, 36 bidirectional x 115kbps, TTL 3V3
- Latency < 20µS
- Fibre optic diagnostic: I2C bus between LINK cards.  
2 x Serial Diagnostic outputs topside
- Simplex SM 9/125 LC Fibre Connector
- Voltage: 6 – 12 V
- Power consumption: 530-1100mA@12V
- 8ch CWDM, 1470 to 1610nm
- Fibre Transmit output power: 0 to +5dBm  
(Front LC Con: 0dBm typical)
- Fibre Receiver sensitivity: -28 to -9dBm  
(Front LC Con: -26 to -7dBm typical)
- AV Card Cooling Fan
- Size: 3U, 21HP

## PART NO:

101188	KD-CON™ VIDEO MULTIPLEXER SUBSEA
101189	KD-CON™ VIDEO MULTIPLEXER TOPSIDE



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# KD-CON™ VIDEO MULTIPLEXER

Subsea video mux contains a LINK AV input fibre card and optionally a LINK HD input fibre card. Topside video mux contains a LINK AV output fibre card, a 2 channel video expansion card and optionally a LINK HD output fibre card. An 8 channel CWDM links the LINK cards fibre SFP transceivers to a single front plate LC fibre connector.

The subsea LINK AV card has 6 video inputs and 2 video inputs externally digitalized by the KD Con Video cards. Subsea mux video signals are interconnected through its backplane connectors. Topside mux video signals are linked through its front plate directly to the AV output Fibre Card and its 2 channel expansion card, MCX coax connectors.

Digital video is optional with up to 4 ch HD-SDI video. Supported video signal standards are SMPTE-292M, SMPTE-259M (720p,

1080i, 1.485Gbps). The digital video signal connections are through four BNC front plate connectors with optional BNC to SMB adapters subsea matching KD Con video cards, enabling easy AV to HD video swap.

The Video Mux system does also have 36 bidirectional (TX/RX) Serial lines (TTL) typically used by the KD Con serial cards.

The AV Cards are the main node for the LINK family fibre optic diagnostics, topside and subsea.

The SFP fibre transceivers transmit output power is typically 0 to +5dBm and receivers sensitivity is -28 to -9dBm. Hence minimum fibre line attenuation must be approx. 10dB. If necessary, attenuators have to be installed.

PIN	A	B	C
1			
2	Coax:	AV 1	
3			
4			
5	Coax:	AV 4	
6			
7			
8	Coax:	AV 2	
9			
10			
11	Coax:	AV 5	
12			
13	+5V (Vid)	+3V3 (Vid)	AGND
14	AD CLK	AD1-0	AD1-1
15	AD1-2	AD1-3	AD1-4
16	AD1-5	AD1-6	AD1-7
17	AD1-8	AD1-9	AD2-0
18	AD2-1	AD2-2	AD2-3
19	AD2-4	AD2-5	AD2-6
20	AD2-7	AD2-8	AD2-9
21			
22	Coax:	AV 3	
23			
24			
25	Coax:	AV 6	
26			
27			
28	Coax:	nc	
29			
30			
31	Coax:	nc	
32			

PIN	A	B	C
1	0V (12V)		
2	+12VDC SUPPLY		
3	SDA	SCL	
4	DATA-	DATA+	0V (COM)
5	+3V3 Vid	TDP 3	RDN 3
6	TX1-1	RX1-1	TX1-2
7	RX1-2	TX1-3	RX1-3
8	TX1-4	RX1-4	TX1-5
9	RX1-5	TX1-6	RX1-6
10	TX1-7	RX1-7	TX1-8
11	RX1-8	TX1-9	RX1-9
12	TX1-10	RX1-10	TX1-11
13	RX1-11	TX1-12	RX1-12
14	0V (Tx/Rx)	TDP 8	RDN 8
15	TX2-1	RX2-1	TX2-2
16	RX2-2	TX2-3	RX2-3
17	TX2-4	RX2-4	TX2-5
18	RX2-5	TX2-6	RX2-6
19	TX2-7	RX2-7	TX2-8
20	RX2-8	TX2-9	RX2-9
21	TX2-10	RX2-10	TX2-11
22	RX2-11	TX2-12	RX2-12
23	0V (Tx/Rx)	AD CLK	AD0
24	TX2-1	RX2-1	TX2-2
25	RX2-2	TX2-3	RX2-3
26	TX2-4	RX2-4	TX2-5
27	RX2-5	TX2-6	RX2-6
28	TX2-7	RX2-7	TX2-8
29	RX2-8	TX2-9	RX2-9
30	TX2-10	RX2-10	TX2-11
31	RX2-11	TX2-12	RX2-12
32			

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