

## PASSIVES DATA SHEET

# 8 Channel OSP Dual Fiber DWDM Mux/Demux



Champion ONE's DWDM passive networking products for outside plant applications provide a cost-effective, high-reliability solution to fiber capacity challenges.

Our OSP passives come in standard and patent-pending IP68-compliant submersible cassettes made of aluminum alloy.

## Technical Specifications

### WAVELENGTH INFORMATION

DWDM channel wavelengths: ITU ch. 16–23, 25–32, 34–41, 43–50, 52–59, 100GHz spacing  
Passband width: ITU  $\pm$  0.11 nm

### FORM FACTOR AND CONNECTOR TYPE

OSP Cassette (IP68-compliant submersible options available)  
LC/UPC connector (MON only)

### DIMENSIONS (LXWXH)

Body: 70 x 70 x 8 mm  
2m or 3m fiber pigtails

### TEMPERATURE RANGE

-40° C to 85° C (operating and storage)

### WARRANTY

All feature a limited 5-year warranty

### COMPLIANCES

RoHS compliant  
Telcordia GR-1209, GR-1221

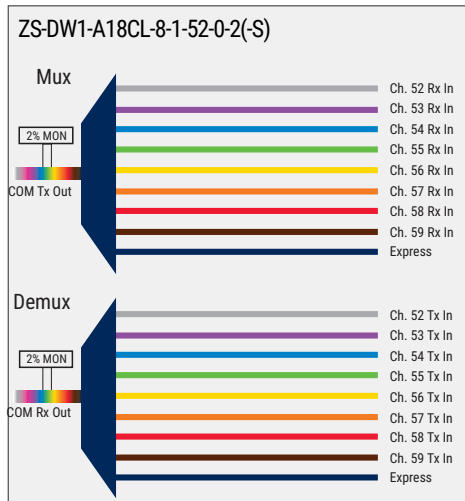
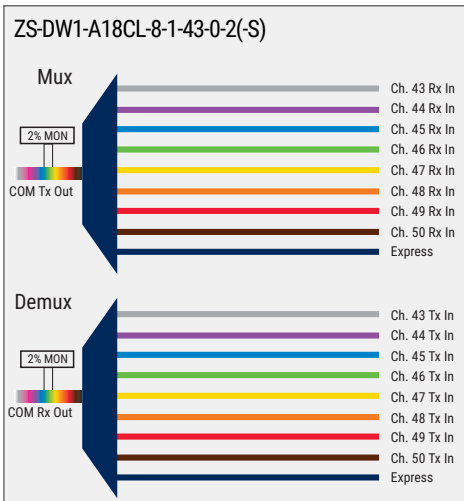
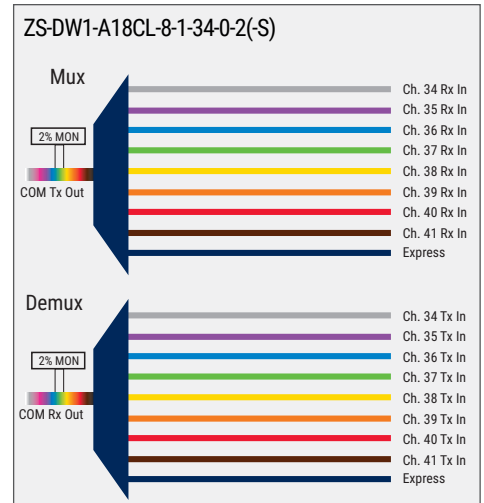
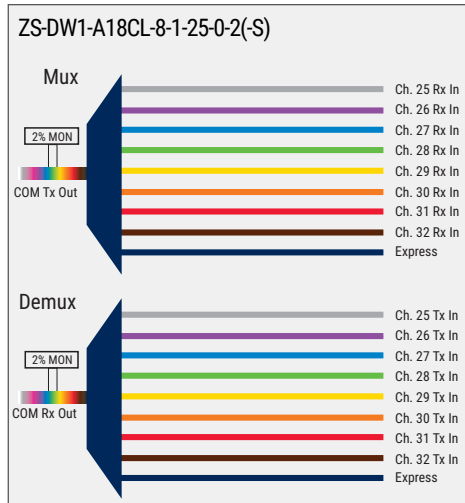
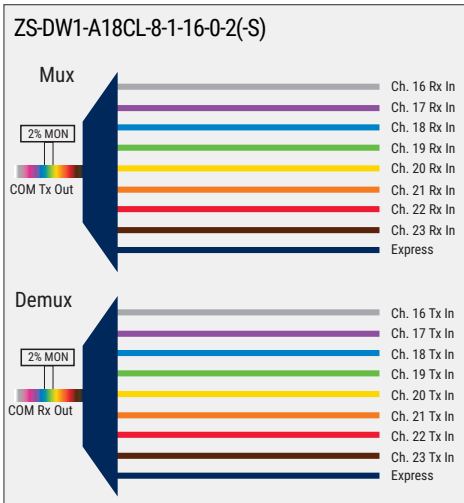
Parameter	Value
DWDM Channel Insertion Loss (dB)	$\leq$ 2.8
Express Channel Insertion Loss (dB)	$\leq$ 2.5
MON Port Insertion Loss (mux/demux, dB)	$\leq$ 21.8 / 19.0
Passband Ripple (dB)	$\leq$ 0.5
Adjacent Channel Isolation between DWDM Channels (dB)	$\geq$ 30
Non-Adjacent Channel Isolation Between DWDM Channels (dB)	$\geq$ 40
Express Channel Port Isolation (dB)	$\geq$ 12

Parameter	Value
Polarization Dependent Loss (dB)	$\leq$ 0.2
Directivity (dB)	$\geq$ 50
Return Loss (dB)	$\geq$ 45
Polarization Mode Dispersion (ps)	$\leq$ 0.2
Fiber Type	SMF-28 or equivalent
Filter Type	TFF
Max Power Handling (mW)	300

## Ordering Information

C1 Part Number	Description
<b>SUBMERSIBLE OSP CASSETTE</b>	
ZS-DW1-A18CL-8-1-16-0-2-S	DWDM 100GHz spacing, Mux/Demux Pair (Dual Fiber), TFF Thin Film Filter Submersible, 8 Channel, No Connector, Channel 16 Start, Single module, OSP 70x70x8mm, 2m pigtail, Skip 0, Standard EXP, MON 2% M/D
ZS-DW1-A18CL-8-1-25-0-2-S	DWDM 100GHz spacing, Mux/Demux Pair (Dual Fiber), TFF Thin Film Filter Submersible, 8 Channel, No Connector, Channel 25 Start, Single module, OSP 70x70x8mm, 2m pigtail, Skip 0, Standard EXP, MON 2% M/D
ZS-DW1-A18CL-8-1-34-0-2-S	DWDM 100GHz spacing, Mux/Demux Pair (Dual Fiber), TFF Thin Film Filter Submersible, 8 Channel, No Connector, Channel 34 Start, Single module, OSP 70x70x8mm, 2m pigtail, Skip 0, Standard EXP, MON 2% M/D
ZS-DW1-A18CL-8-1-43-0-2-S	DWDM 100GHz spacing, Mux/Demux Pair (Dual Fiber), TFF Thin Film Filter Submersible, 8 Channel, No Connector, Channel 43 Start, Single module, OSP 70x70x8mm, 2m pigtail, Skip 0, Standard EXP, MON 2% M/D
ZS-DW1-A18CL-8-1-52-0-2-S	DWDM 100GHz spacing, Mux/Demux Pair (Dual Fiber), TFF Thin Film Filter Submersible, 8 Channel, No Connector, Channel 52 Start, Single module, OSP 70x70x8mm, 2m pigtail, Skip 0, Standard EXP, MON 2% M/D

## Network Diagrams



## Mounting Options

For convenient deployment in a standard 19" rack, Champion ONE also offers the following range of chassis and faceplate options (ordered separately from mux).



Parameter	Value
C1 Part Number	ZS-LGX3R-14S-CHASSIS-1923
Description	LGX 3RU Chassis for 14 LGX Modules and fiber mgmt. - 19 or 23" rack

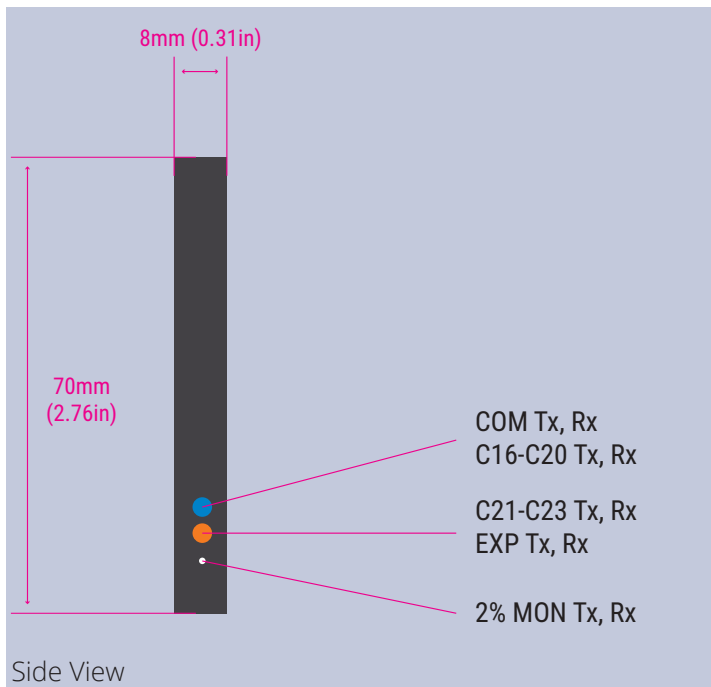
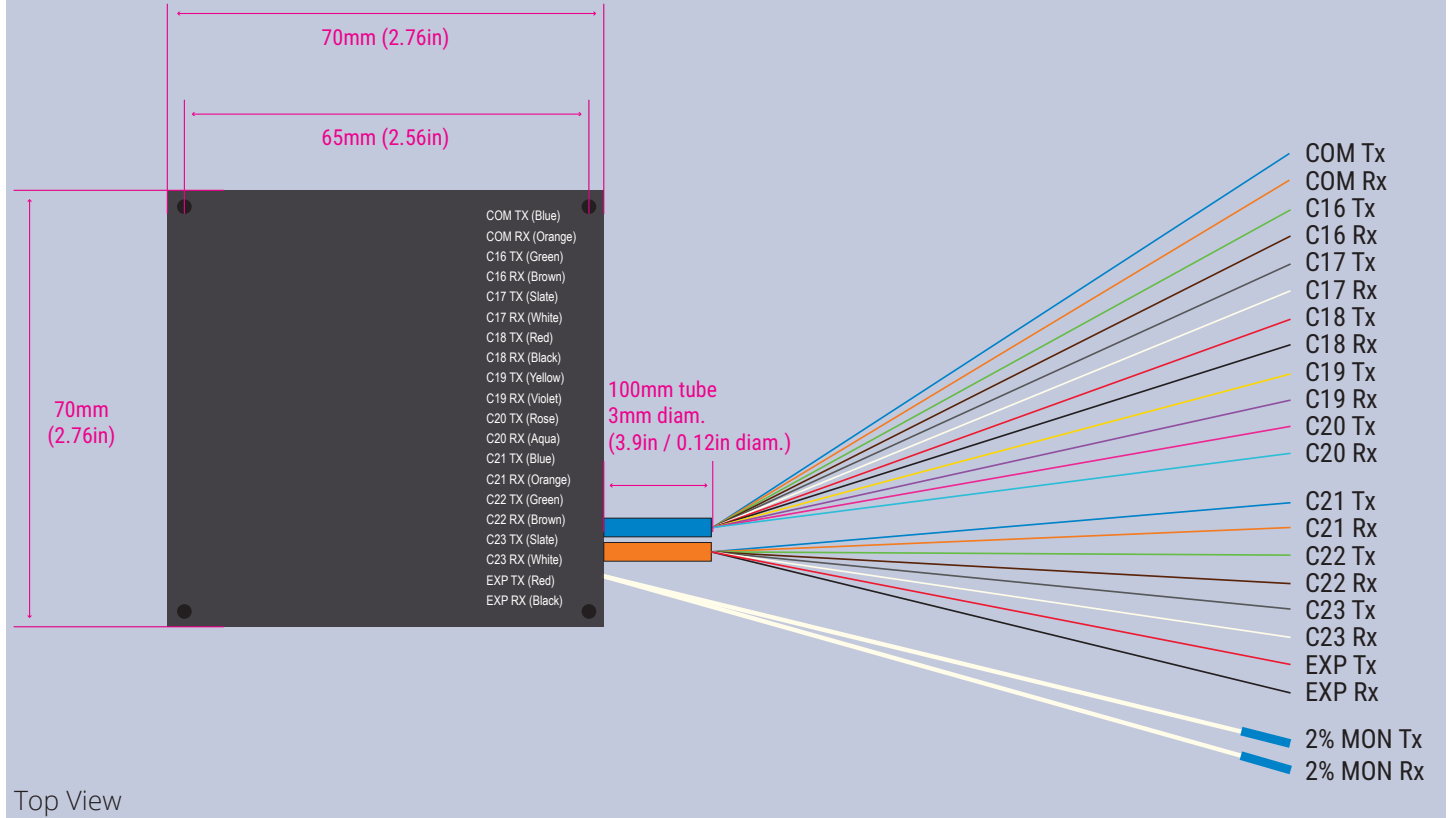
Parameter	Value
C1 Part Number	ZS-LGX1R-3S-CHASSIS-1923
Description	LGX 1RU Chassis for 3 LGX Modules and fiber mgmt. - 19 or 23" rack



Parameter	Value
C1 Part Number	LGX1R-FACEPLATE
Description	3-Slot LGX Faceplate for 19" rack

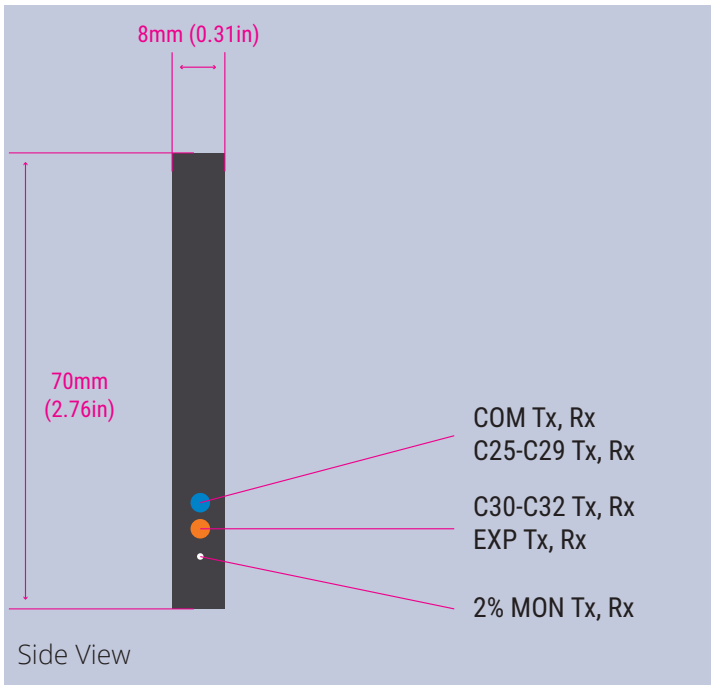
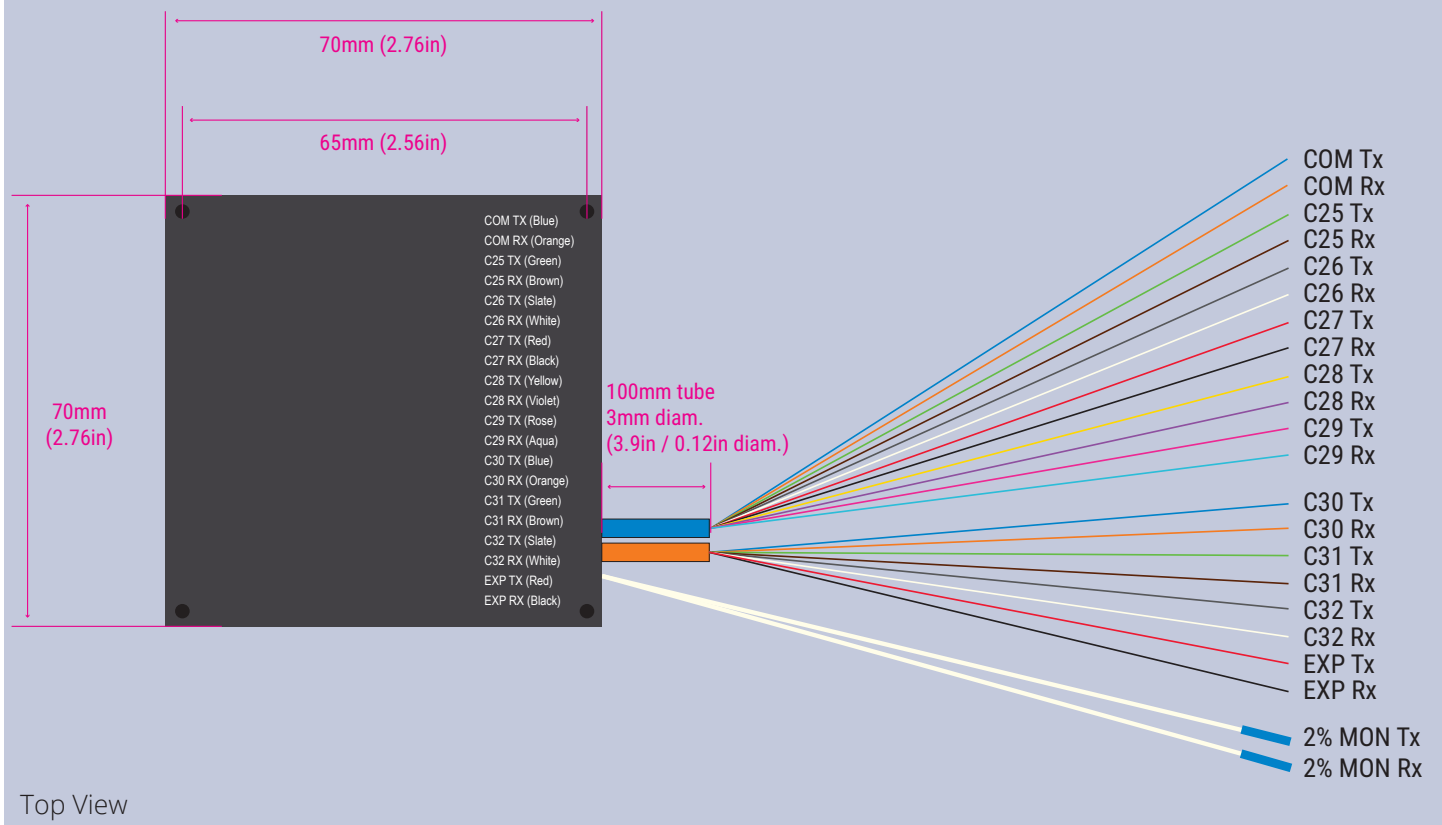
## Physical Diagrams and Extended Loss Specifications

ZS-DW1-A18CL-8-1-16-0-2(-S)



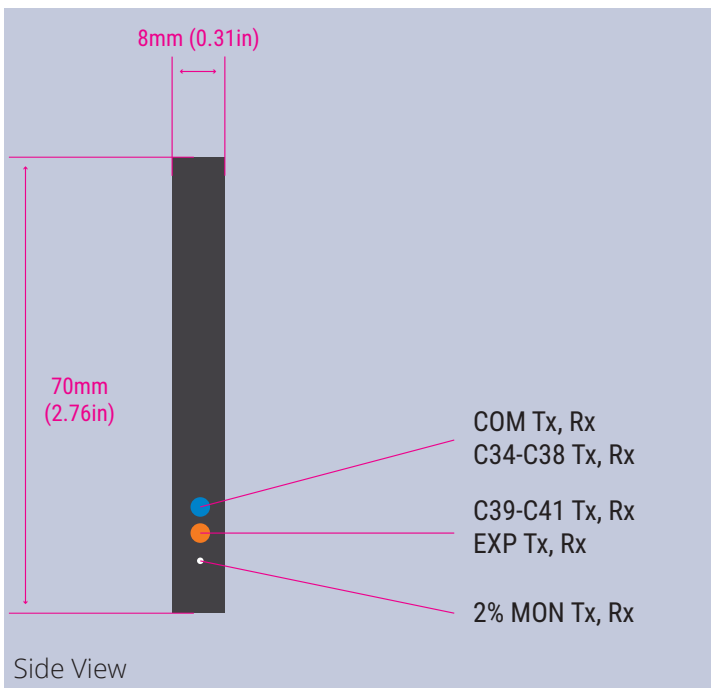
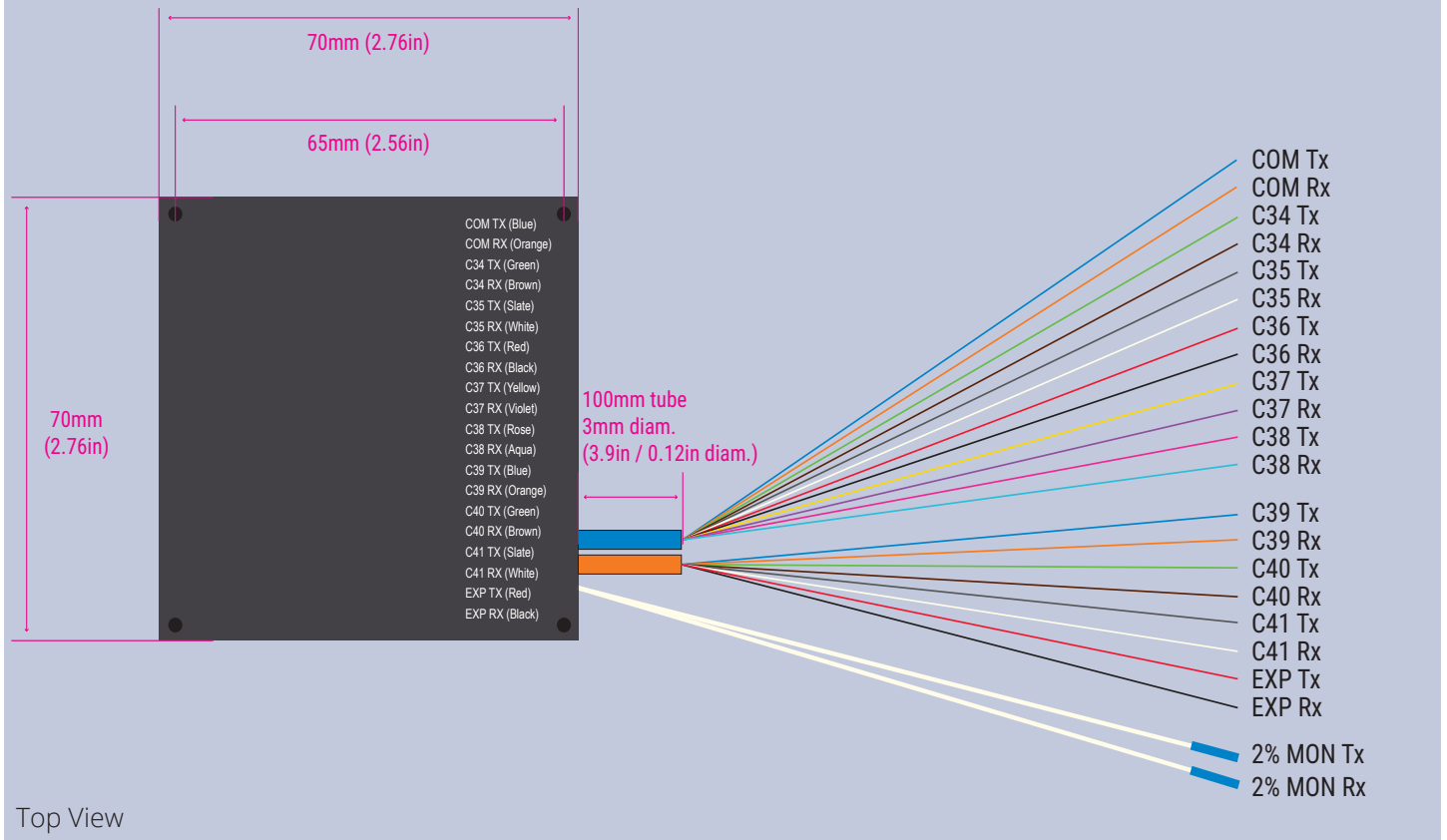
Channel	Typical		Max	
	Mux IL (dB)	Dmx IL (dB)	Mux IL (dB)	Dmx IL (dB)
2%MON	21.6	19.0	21.8	19.0
ITU ch. 16	1.1	2.6	1.2	2.8
ITU ch. 17	1.3	2.4	1.5	2.6
ITU ch. 18	1.6	2.2	1.8	2.4
ITU ch. 19	1.8	2.0	2.0	2.2
ITU ch. 20	2.0	1.8	2.2	2.0
ITU ch. 21	2.2	1.6	2.4	1.8
ITU ch. 22	2.4	1.3	2.6	1.5
ITU ch. 23	2.6	1.1	2.8	1.2
EXP	2.3		2.5	

ZS-DW1-A18CL-8-1-25-0-2(-S)



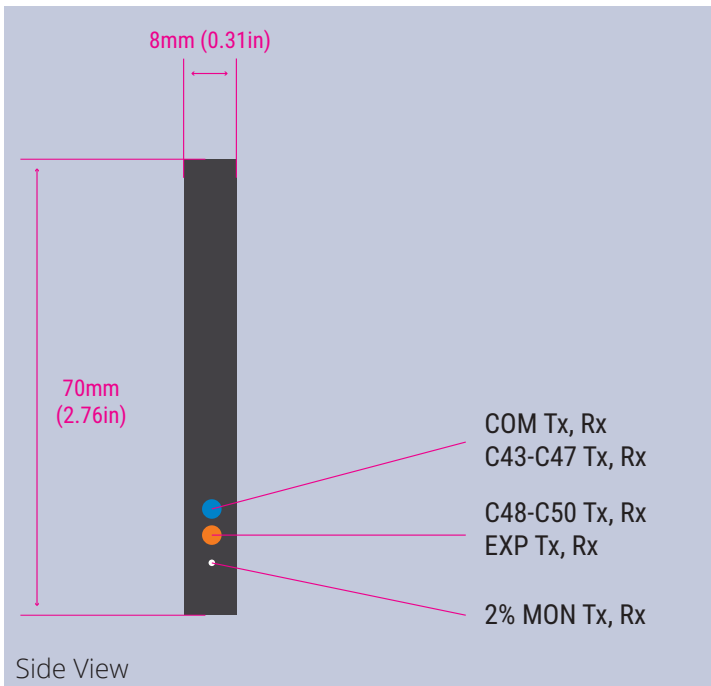
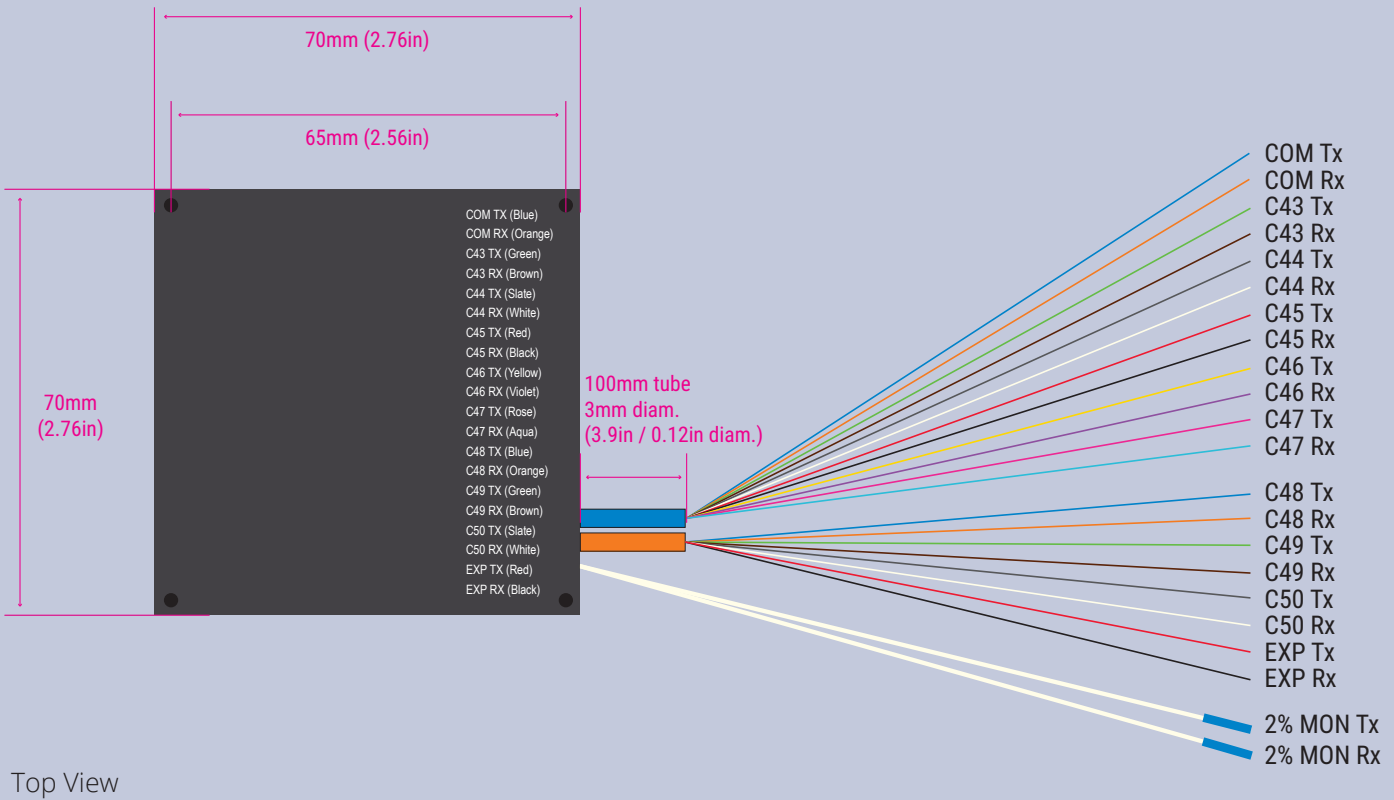
Channel	Typical		Max	
	Mux IL (dB)	Dmx IL (dB)	Mux IL (dB)	Dmx IL (dB)
2%MON	21.6	19.0	21.8	19.0
ITU ch. 25	1.1	2.6	1.2	2.8
ITU ch. 26	1.3	2.4	1.5	2.6
ITU ch. 27	1.6	2.2	1.8	2.4
ITU ch. 28	1.8	2.0	2.0	2.2
ITU ch. 29	2.0	1.8	2.2	2.0
ITU ch. 30	2.2	1.6	2.4	1.8
ITU ch. 31	2.4	1.3	2.6	1.5
ITU ch. 32	2.6	1.1	2.8	1.2
EXP	2.3		2.5	

ZS-DW1-A18CL-8-1-34-0-2(-S)



Channel	Typical		Max	
	Mux IL (dB)	Dmx IL (dB)	Mux IL (dB)	Dmx IL (dB)
2%MON	21.6	19.0	21.8	19.0
ITU ch. 34	1.1	2.6	1.2	2.8
ITU ch. 35	1.3	2.4	1.5	2.6
ITU ch. 36	1.6	2.2	1.8	2.4
ITU ch. 37	1.8	2.0	2.0	2.2
ITU ch. 38	2.0	1.8	2.2	2.0
ITU ch. 39	2.2	1.6	2.4	1.8
ITU ch. 40	2.4	1.3	2.6	1.5
ITU ch. 41	2.6	1.1	2.8	1.2
EXP	2.3		2.5	

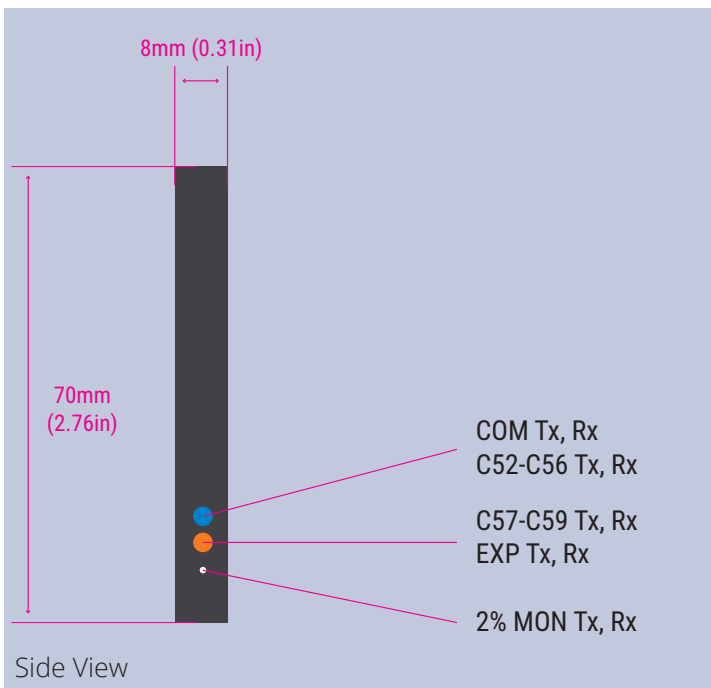
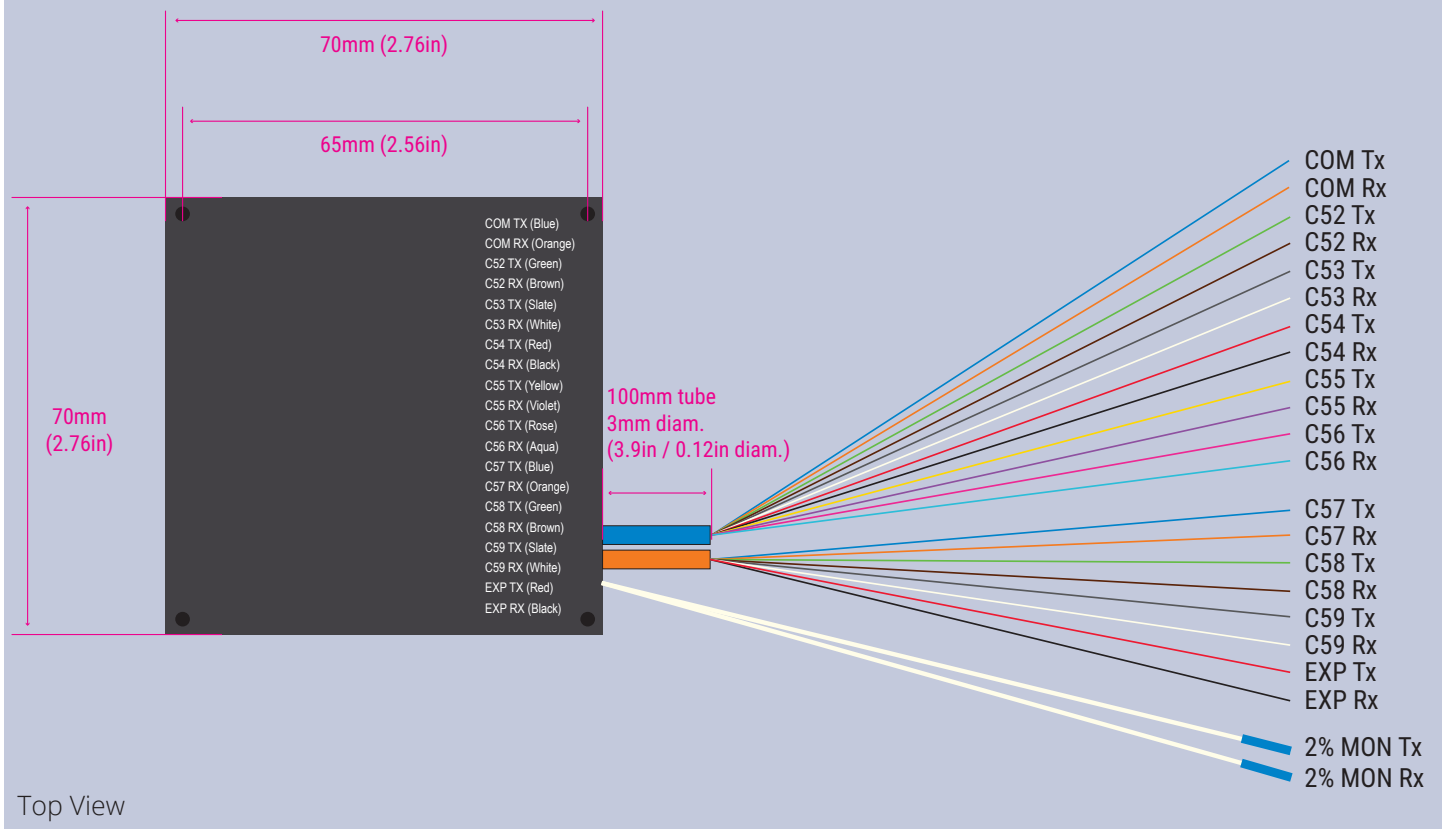
ZS-DW1-A18CL-8-1-43-0-2(-S)



Channel	Typical		Max	
	Mux IL (dB)	Dmx IL (dB)	Mux IL (dB)	Dmx IL (dB)
2%MON	21.6	19.0	21.8	19.0
ITU ch. 43	1.1	2.6	1.2	2.8
ITU ch. 44	1.3	2.4	1.5	2.6
ITU ch. 45	1.6	2.2	1.8	2.4
ITU ch. 46	1.8	2.0	2.0	2.2
ITU ch. 47	2.0	1.8	2.2	2.0
ITU ch. 48	2.2	1.6	2.4	1.8
ITU ch. 49	2.4	1.3	2.6	1.5
ITU ch. 50	2.6	1.1	2.8	1.2
EXP	2.3		2.5	



ZS-DW1-A18CL-8-1-52-0-2(-S)



Channel	Typical		Max	
	Mux IL (dB)	Dmx IL (dB)	Mux IL (dB)	Dmx IL (dB)
2%MON	21.6	19.0	21.8	19.0
ITU ch. 52	1.1	2.6	1.2	2.8
ITU ch. 53	1.3	2.4	1.5	2.6
ITU ch. 54	1.6	2.2	1.8	2.4
ITU ch. 55	1.8	2.0	2.0	2.2
ITU ch. 56	2.0	1.8	2.2	2.0
ITU ch. 57	2.2	1.6	2.4	1.8
ITU ch. 58	2.4	1.3	2.6	1.5
ITU ch. 59	2.6	1.1	2.8	1.2
EXP	2.3		2.5	