

SFP

DL4000 VIDEO TRANSPORT SYSTEM

Small Form-Factor Pluggable Optics



Features

Industry standard SFP transceivers transmit and receive in one flexible unit

Formats supported:

- 2.976Gb/s 3G-SDI (SMPTE 424M)
- 1.485Gb/s HD-SDI (SMPTE 292)
- SD-SDI (SMPTE 259M-C ITU 656)
- SDTI (SMPTE 305M)
- DVB-ASI
- Artel 270
- Composite analog video & audio (NTSC, PAL)
- 19.39Mb/s ATSC (SMPTE 310M)
- 10/100/1000 ethernet

Industry standard wavelengths:

- 1310nm
- 1550nm
- CWDM (ITU G.694.2)
- DWDM (ITU G.694.1)

Up to 34dB loss budget

LC/PC optical connectors

Compatible with:

- DL4000 platform optical filters
- MegaWav
- Other ITU G.694 standard filters

WDM and CWDM support transmission and reception of SDI and HD-SDI pathological patterns

The DL4000 Video Transport System utilizes a common set of externally accessible Small Form-Factor Pluggable (SFP) optics. SFPs are both an optical transmitter and wide band receiver and feature standard LC connectors. For ease of deployment and sparing, DL4000 SFPs are designed to be compatible across virtually the entire platform.

Artel designed the DL4000 Video Transport System to be the most easily deployed and maintained fiber optic transport system ever developed. This included designing the system with a common set of externally installed SFP optics. These SFPs are available in 1310nm, 1550nm, 18 CWDM and 40 DWDM channels and include a wide band optical receiver. This enables a variety of flexible deployments with significantly less stocked optical components. Compatibility with DL4000 platform, MegaWav and other ITU G694 standard multiplexers allow creation of flexible fiber efficient optical networks.



Compatibility

Module Model	DLS31VX3G-11	DLS31VX3G-30	DLS55VX3G-30	DLSxxVX3G-28	DLSWxxHX-33	DLSF45	DLSFHDBNC
DLC103	✓	✓	✓	✓			✓
DLC150E	✓	✓	✓	✓	✓		✓
DLC170AD	✓	✓	✓	✓	✓		✓
DLC170DA	✓	✓	✓	✓	✓		✓
DLC200	✓	✓	✓	✓	✓	✓	
DLC270	✓	✓	✓	✓	✓		✓
DLC274D	✓	✓	✓	✓	✓		✓
DLC274M	✓	✓	✓	✓	✓		✓
DLC300	✓	✓	✓	✓	✓		✓
DLC410	✓	✓	✓	✓	✓	✓	
DLT710							

SFP (Small Form-Factor Pluggable Optics)

Specifications

SFP Model	DLS31VX3G-11	DLS31VX3G-30	DLS55VX3G-30	DLSCxxVX3G-28	DLSWxxHX-33	DLSE45	DLSEHDBC
Part number	393-051310-11	393-051310-30	393-051550-30	393-06xxxx-28	393-2400033-xx	393-000100-00	393-000200-00
Optical budget (dB)	11			28	33	-	-
Type	WDM			CWDM	DWDM	Electrical RJ-45	Electrical HD-BNC
SDI pathological compatible	Yes					No	Yes
Maximum bit-rate (Gb/s)	3	3	3	3	3	1.25	3
Transmitter							
Wavelength (nm)	1310 ±30	1310 ±30	1550 ±40	ITU G.694.2 standard 1271 to 1611 ±6.5	ITU-T G.694.1 standard channels 21 to 60	-	-
Optical output power (Min dBm)	-7	2	2	0	4	-	-
Optical output power (max dBm)	-2	5	5	4	7	-	-
Spectral width (nm)	3	1	1	1	0.4	-	-
Dispersion penalty		-	1dB @ 80km	2dB @ 120km	1dB @ 120km	-	-
Receiver							
Receiver sensitivity (dBm)	-18	-28	-28	-28	-29	-	-
Maximum input (dBm)	-2	-9	-9	-9	-9	-	-
Input wavelength (nm)	1270 to 1610	1250 to 1620					-
Bit error rate	10 ⁻¹³					-	-

Ordering information

WDM Video Transceiver (30dB)

Model	Optical wavelength	Part #
DLS31VX3G-30	1310nm	393-051310-30
DLS55VX3G-30	1550nm	393-051550-30

Short Range (11dB)

Model	Optical wavelength	Part #
DLS31VX3G-11	1310nm	393-051310-11

CWDM Video Transceiver (28dB)

Model	Channel number	Optical wavelength	Part #
DLSC27VX3G-28	27	1271nm	393-061271-28
DLSC29VX3G-28	29	1291nm	393-061291-28
DLSC31VX3G-28	31	1311nm	393-061311-28
DLSC33VX3G-28	33	1331nm	393-061331-28
DLSC35VX3G-28	35	1351nm	393-061351-28
DLSC37VX3G-28	37	1371nm	393-061371-28
DLSC39VX3G-28	39	1391nm	393-061391-28
DLSC41VX3G-28	41	1411nm	393-061411-28
DLSC43VX3G-28	43	1431nm	393-061431-28
DLSC45VX3G-28	45	1451nm	393-061451-28
DLSC47VX3G-28	47	1471nm	393-061471-28
DLSC49VX3G-28	49	1491nm	393-061491-28
DLSC51VX3G-28	51	1511nm	393-061511-28
DLSC53VX3G-28	53	1531nm	393-061531-28
DLSC55VX3G-28	55	1551nm	393-061551-28
DLSC57VX3G-28	57	1571nm	393-061571-28
DLSC59VX3G-28	59	1591nm	393-061591-28
DLSC61VX3G-28	61	1611nm	393-061611-28

DWDM Transceiver (33dB)

Model	Channel #	Freq (THz)	Approx center wavelength (nm)	Part #
DLSW21HX-33	21	192.1	1560.61	393-240033-21
DLSW22HX-33	22	192.2	1559.79	393-240033-22
DLSW23HX-33	23	192.3	1558.98	393-240033-23
DLSW24HX-33	24	192.4	1558.17	393-240033-24
DLSW25HX-33	25	192.5	1557.36	393-240033-25
DLSW26HX-33	26	192.6	1556.55	393-240033-26
DLSW27HX-33	27	192.7	1555.75	393-240033-27
DLSW28HX-33	28	192.8	1554.94	393-240033-28
DLSW29HX-33	29	192.9	1554.13	393-240033-29
DLSW30HX-33	30	193.0	1553.33	393-240033-30
DLSW31HX-33	31	193.1	1552.52	393-240033-31
DLSW32HX-33	32	193.2	1551.72	393-240033-32
DLSW33HX-33	33	193.3	1550.92	393-240033-33
DLSW34HX-33	34	193.4	1550.12	393-240033-34
DLSW35HX-33	35	193.5	1549.32	393-240033-35
DLSW36HX-33	36	193.6	1548.51	393-240033-36
DLSW37HX-33	37	193.7	1547.72	393-240033-37
DLSW38HX-33	38	193.8	1546.92	393-240033-38
DLSW39HX-33	39	193.9	1546.12	393-240033-39
DLSW40HX-33	40	194.0	1545.32	393-240033-40
DLSW41HX-33	41	194.1	1544.53	393-240033-41
DLSW42HX-33	42	194.2	1543.73	393-240033-42
DLSW43HX-33	43	194.3	1542.94	393-240033-43
DLSW44HX-33	44	194.4	1542.14	393-240033-44
DLSW45HX-33	45	194.5	1541.35	393-240033-45
DLSW46HX-33	46	194.6	1540.56	393-240033-46
DLSW47HX-33	47	194.7	1539.77	393-240033-47
DLSW48HX-33	48	194.8	1538.98	393-240033-48
DLSW49HX-33	49	194.9	1538.19	393-240033-49
DLSW50HX-33	50	195.0	1537.40	393-240033-50
DLSW51HX-33	51	195.1	1536.61	393-240033-51
DLSW52HX-33	52	195.2	1535.82	393-240033-52
DLSW53HX-33	53	195.3	1535.04	393-240033-53
DLSW54HX-33	54	195.4	1534.25	393-240033-54
DLSW55HX-33	55	195.5	1533.47	393-240033-55
DLSW56HX-33	56	195.6	1532.68	393-240033-56
DLSW57HX-33	57	195.7	1531.90	393-240033-57
DLSW58HX-33	58	195.8	1531.12	393-240033-58
DLSW59HX-33	59	195.9	1530.33	393-240033-59
DLSW60HX-33	60	196.0	1529.55	393-240033-60