

Features

- Preconfigured video transport systems for 1-fiber transmission of up to 128 channels
- Uncompressed 10-bit digital video
- Very high quality video $\geq 67\text{dBw}$ SNR
- Supports multiple duplex data channels and simplex data in the same direction as the video
- Network Management System (NMS) compatible (optional)



SpectraStream™ and SpectraStreamPlus™

Description

These preconfigured, assembled, and tested Optelecom® SpectraStream systems utilize CWDM techniques to transport up to 128 channels of uncompressed live video on one fiber. By combining CWDM versions of our standard 9152D and 9252D 8-channel multiplexer and demultiplexer cards with CWDM optical components, systems transporting 16, 32, 48, 96, and 128 channels of video are available.

Option cards supporting additional data, audio, contact closure channels, and 10 or 100Mb Ethernet on the same fiber are available.

The system can be monitored via serial port, SNMP or Ethernet using the optional 9942A and 9900 NMS software package.

The wide operating temperature range of these units makes this series well-suited for environmentally harsh applications such as traffic monitoring, video surveillance in city centers, and federal and critical infrastructures.

If a more specialized system is required, contact TKH Security Solutions for assistance in designing a custom system.

Technical Specifications

SpectraStream™ and SpectraStreamPlus™



Video (per channel)

Video format	NTSC, PAL
Video input	1Vpp into 75Ω
Connector type	BNC
Bandwidth	5Hz to 6.5MHz (-3dB)
Differential gain	≤0.7%
Differential phase	≤0.7°
Signal-to-noise ratio	≥67dBw
Video encoding	Uncompressed 10-bit linear PCM
Video sampling rate	16MHz

Data Ports^{1, 2}

SpectraStream Data port	Simplex RS-485/RS-422, simplex RS-232
SpectraStream RS-485 Ports	Simplex RS-485
SpectraStream High-speed port	Simplex
SpectraStreamPlus Data port	Duplex RS-485/422
SpectraStreamPlus RS-485 Ports	Duplex 2-wire
SpectraStreamPlus High-speed port	Duplex/ simplex
Connector	RJ-45

¹ Simplex ports operate in the TX to RX direction.

² For details refer to the 9152D and 9252D Specification Sheets. Other data options are available; consult TKH Security Solutions for details.

Multiplexing

Multiplexing	CWDM
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Management

Management system	9900 Network Management System (NMS)
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Powering

Power requirements	All systems operate from 100-240VAC 50/60Hz
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Environmental

Operating temperature	-40°C to +74°C (-40°F to +165°F)
Storage temperature	-55°C to +85°C (-67°F to +185°F)
Relative humidity	<95% with no condensation

Technical Specifications

SpectraStream™ and SpectraStreamPlus™

Mechanical

Model/ System Size	No. of 9002 Chassis Transmit End	No. of 9002 Chassis Receiver End	CWDM Unit
16	1	1	Built-in
32	1	1	Built-in
48	1	1	Built-in; 1RU for Plus
64	1	1	1RU
96	1	1	1RU
128	1	1	1RU

9002 Chassis Dimensions — 19" rack-mount chassis

Dimensions (h x w x d)	177.8 x 442.6 x 203.2mm (7 x 17.4 x 8in)
Weight (empty)	2721.5g (6.0lbs)

CWDM — 1RU high 19" rack-mount chassis

Dimensions (h x w x d)	44.45 x 482.6 x 149.09mm (1.75 x 19.0 x 5.87in.)
Weight (empty)	907.18g (2.0lbs.)

Optical

No. of Channels	16	32	48	64	96	128
Fiber type	SM (09)	SM (09)	SM (09)	SM (09)	SM (09)	SM (09)
System link budget	18db	18db	18db	18db	18db	18db
Link length	42km	51km	51km	51km	15km	15km
Minimum link loss	0db	0db	0db	0db	0db	0db
Output power	-5dBm	-3dBm	-3dBm	-3dBm	-3dBm	-3dBm
Output wavelength	1310-1550nm	1510-1570nm	1510-1610nm	1470-1610nm	1310-1610nm	1310-1610 nm
Input sensitivity	-23dBm	-21dBm	-21dBm	-21dBm	-21dBm	-21dBm
Connector type	FC/ST	FC/ST	FC/ST	FC/ST	FC/ST	FC/ST

Ordering Information

Models	Description	Fiber type
SpectraStream-16-FC	16-channel video transmission system with simplex data	1xSM
SpectraStream-32-FC	32-channel video transmission system with simplex data	1xSM
SpectraStream-48-FC	48-channel video transmission system with simplex data	1xSM
SpectraStream-64-FC	64-channel video transmission system with simplex data	1xSM
SpectraStream-96-FC	96-channel video transmission system with simplex data	1xSM
SpectraStream-128-FC	128-channel video transmission system with simplex data	1xSM
SpectraStreamPlus-16-FC	16-channel video transmission system with duplex data	1xSM
SpectraStreamPlus-32-FC	32-channel video transmission system with duplex data	1xSM
SpectraStreamPlus-48-FC	48-channel video transmission system with duplex data	1xSM
SpectraStreamPlus-64-FC	64-channel video transmission system with duplex data	1xSM
SpectraStreamPlus-96-FC	96-channel video transmission system with duplex data	1xSM
SpectraStreamPlus-128-FC	128-channel video transmission system with duplex data	1xSM



The quality management system utilized in the development, production, sales, and support of this product is ISO 9001:2008 certified by LRQA.

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