

SpectraStream™

Features

- SpectraStream™ systems transport combinations of high quality video and duplex data, audio, Ethernet, intercom, and contact closures on one single-mode fiber using CWDM
- Extremely versatile modular system with a choice of modules offering unrivaled functionality
- Systems may be designed in point-to-point or in optical add/drop configurations
- Optelecom®'s field-proven digital video cards exceed RS250C Medium Haul transmission specifications
- Data, audio, contact closures, and Ethernet transport
- High quality uncompressed digital video without latency or artifacts



Description

The Optelecom® SpectraStream™ combines Coarse Wave Division Multiplexing (CWDM) fiber technology with Optelecom digital video multiplexer/demultiplexer cards to transmit between 4 and 128 channels of high-quality, real-time video signals (bidirectionally) over one optical fiber. The system is extremely flexible, with the ability to add bidirectional data, audio, contact closure, and 10 Mbps, 100 Mbps, or Gigabit Ethernet channels.

The SpectraStream™ system supports a broad range of data, audio, and contact closure options including 16-bit digital mono or stereo audio options, RS-232, RS-422, RS-485 data options, Ethernet, intercom, and contact closure options. These can be simplex or duplex and are configurable, ensuring a flexible system even if system requirements change after installation.

It is possible to add up to 256 stereo audio channels operating in the same direction as the video or 128 stereo audio and 128 duplex data or contact closure channels. Adding the additional data and audio channels does not reduce the video resolution or channel count.

Please contact TKH Security Solutions for additional assistance in designing a system to meet your requirements.

Ordering Information

Model	Description
SpectraStream™	Call TKH Security Solutions for a system design.

SpectraStream™

Technical specifications

Video (per channel)

Video format	NTSC, PAL
Video input	1Vpp into 75Ω
Connector	BNC
Bandwidth	5 Hz to 6.5 MHz (-3 dB)
Differential gain	≤0.7%
Differential phase	≤0.7°
SNR	≥63 dBw
Video encoding	Uncompressed 9-/10-bit linear PCM
Video sampling rate	16 MHz

Data Ports

Port	Interface	Connector
SpectraStream Data Ports	Simplex RS-485/RS-422, Simplex RS-232	RJ-45
SpectraStream RS-485 Ports	Simplex RS-485	RJ-45
SpectraStream HS Ports	Simplex	RJ-45

Option Module

Number of free channels	2x, duplex
A Module	1x audio
B Module	1x user-configurable data (RS-232, RS-422, RS-485)
C Module	1x contact closure
D or E Module	2x audio (simplex only)
GM or GR Module	2x intercom audio

For more information on Option Modules, refer to the Option Modules data sheet or contact TKH Security Solutions.

Optical CWDM

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

Management System 9900 Network Management System (NMS)

Physical Specifications

9002 Chassis Dimensions — 19" rack-mount chassis

Dimensions (h x w x d)	177.8 x 442.6 x 203.2 mm (7 x 19 x 8 in.)
Weight (empty)	2721.5 g (6.0 lbs.)

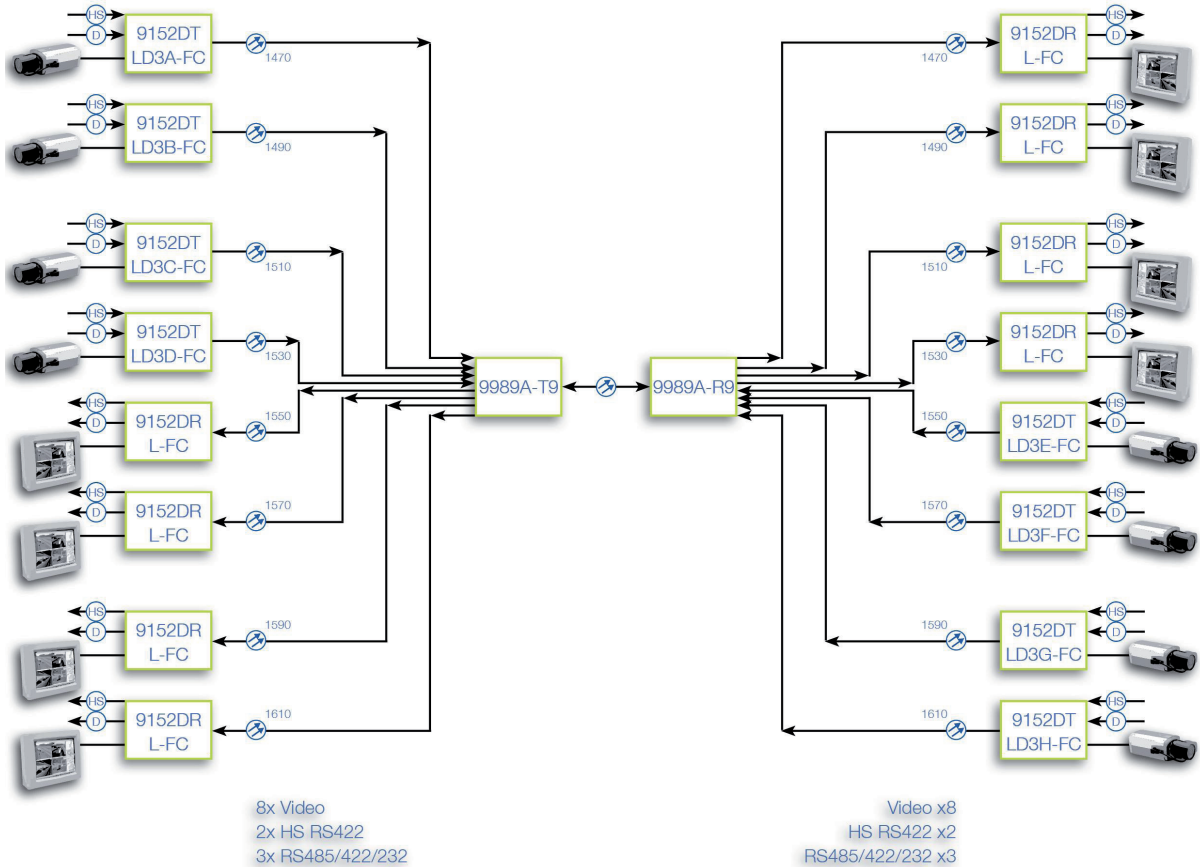
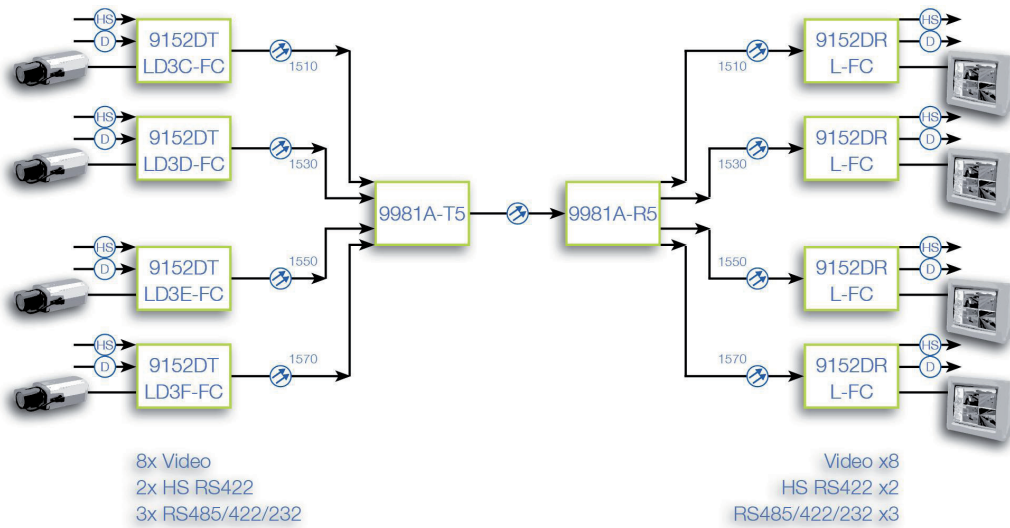
CWDM — 1RU high 19" rack-mount chassis

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

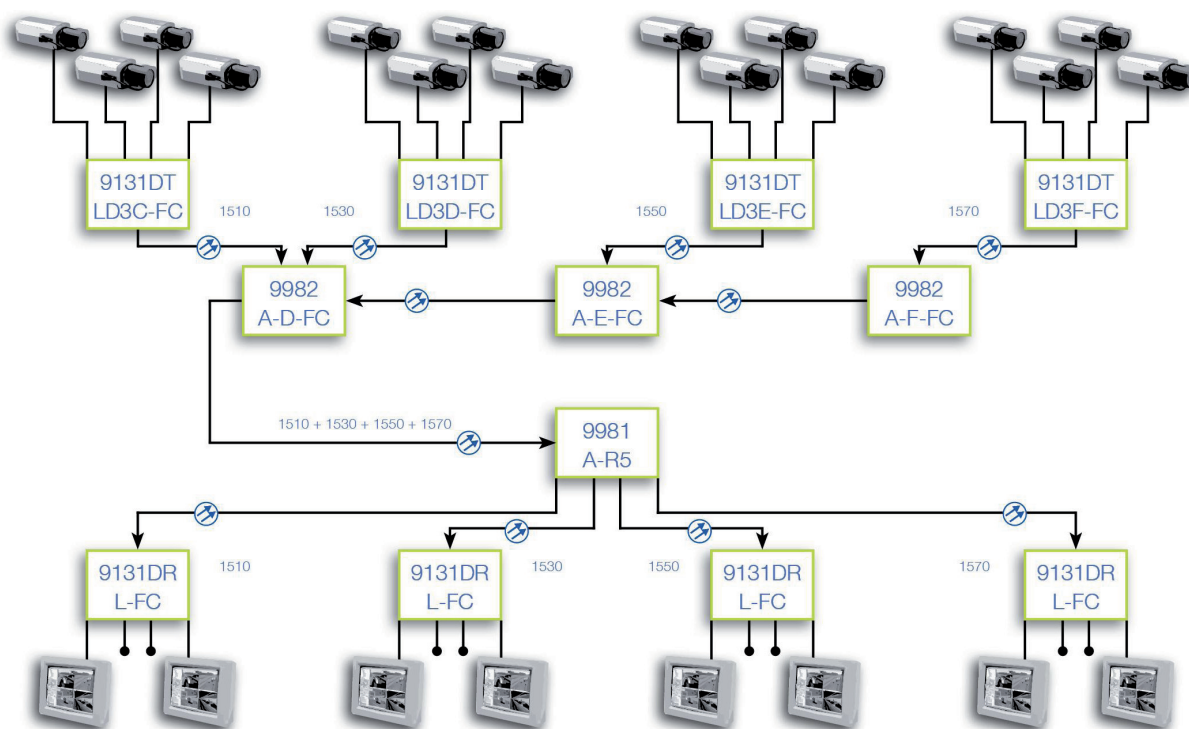
Environmental

Operating temperature	-40° C to +74° C (-40° F to +165.2° F)
Storage temperature	-55° C to +85° C (-67° F to +185° F)
Relative humidity	0 to 95% noncondensing

SpectraStream™ Application



SpectraStream™ Application



The quality management system utilized in the development, production, sales and support of this product is ISO 9001:2008 certified by LRQA.
© TKH Security Solutions Version: April 2011 V1.5 (First Edition) – Subject to



member of the TKH Group <