

# LTC 46xx and LTC 47xx Series Fiber Optic Transmission Units



The LTC 4600 Series are transmission systems that provide efficient, high quality video and data transmission via a multimode fiber optic cable for improved CCTV system performance. Signals are immune to ground loops, radio frequency interference (RFI), electromagnetic interference (EMI), and cross talk because the video carrier is infrared light and is transmitted through a nonconductive fiber optic cable. Interference-free operation ensures reliable service. Unlike microwave, wire, and coaxial cable transmission systems, fiber optic transmission is difficult, if not impossible to tap. And, since fiber optic cable is nonconductive and does not radiate a signal, it is difficult to detect and locate. These compact devices are available in a surface mount enclosure or in a modular style package that can be rack-mounted using an optional EIA 48 cm (19 in.) compatible rack unit.

- Video and data models available
- No adjustments required
- Long distance-high security
- Surface-mount or rack-mount units
- Video models support NTSC, PAL, and SECAM standards
- Data communication link supports keyboards used with:

#### Model Summary Model No.

Model No.	Description/Use
LTC 4641, LTC 4642 Series	Single-channel Video Transmissions
LTC 4744, LTC 4745 Series	4-Channel Video Transmissions
LTC 4630, LTC 4631 Series	Bilinx™ Video/Data Transmissions
LTC 4628, LTC 4629 Series	Video/Bi-Phase Data Transmissions
LTC 4671 Series	RS-485 Allegiant/ Divar/System4 Key- board Data Transmissions
LTC 4651 Series	RS-232/ Bi-Phase Data Transmissions
LTC 4681, LTC 4682 Series	10/100Base-T Ethernet Data Transmis- sions
LTC 4637 Series	Card Cage Enclosure for Rack-mount Models

# LTC 4641 and LTC 4642 Series

The LTC 4641 Series Transmitters and LTC 4642 Series Receivers are designed for transmission of CCTV video signals. Efficient installation is assured because there are no user adjustments required. The wide bandwidth transmission capability of these units enables clear, sharp black and white or color pictures to be transmitted over long distances. The compact transmitters are small enough to be connected directly to a camera's BNC connector, thereby simplifying installation.

#### LTC 4744 and LTC 4745 Series

The LTC 4744 Transmitter and LTC 4745 Receiver are designed for the transmission of up to 4 CCTV video signals using one multimode fiber cable. This link operates in the 1310 nm range and incorporates 8-bit video encoding exceeding the requirements of EIA RS-250C for Medium Haul video transmissions. Integral LED status indicators provide an indication of operating parameters.

#### LTC 4630 and LTC 4631 Series

The LTC 4630 and LTC 4631 are a bidirectional transmission system designed to operate with Bilinxcompatible video/data CCTV products using a single multimode optical fiber cable. This system independently transmits a video signal from the camera location to the controller location, while simultaneously transmitting Bilinx control/event data in both directions. The video channel is compatible with both NTSC and PAL color cameras. The data channel is compatible with all Bilinx-compatible control systems and cameras. Both units incorporate LED indicators to provide quick visual indication of the module performance.

# LTC 4628 and LTC 4629 Series

The LTC 4628 and LTC 4629 are a bidirectional transmission system designed to implement a complete CCTV system using a single optical fiber cable. This system independently transmits a video signal from the camera location to the controller location, while simultaneously transmitting Allegiant Bi-Phase control code from the controller location to the camera location. The video channel is compatible with monochrome or color cameras. The data channel is compatible with control systems that utilize simplex RS-232 or RS-422 signals. Both units incorporate LED indicators to provide quick visual indication of the module performance. The LTC 4629 Transceiver Series is also compatible with the ENV Series of Bosch AutoDome<sup>®</sup> Cameras that incorporate an integral fiber optic transceiver.

#### LTC 4671 Series

The LTC 4671 Series are Transceivers designed especially for the transmission of RS-485 signals used by system keyboards in the Allegiant Series of switcher/ controller systems, the Divar Series of digital video recorders, and the System4 Series of multiplexers. The unit contains both a transmitter and a receiver operating in the 850 nm range to allow bidirectional communication using two fibers between the main control site and its remote keyboard.

#### LTC 4651 Series

The LTC 4651 Transceivers are designed especially for the transmission of Bi-Phase control code signals used in the Allegiant Series of switcher/controllers, various DVRs, multiplexers, and other camera control systems. They are also compatible with Manchester code and standard RS-232 signals. These units operate in the 850 nm range and contain a removable screw terminal type connector that allows easy connection to the shielded twisted pair cable carrying the control signal. These units can also be used as an RS-232C transceiver that is compatible with EIA Standard RS-232C levels. The system is suitable for simplex asynchronous data transmissions using one fiber, or full duplex asynchronous data transmissions using two fibers up to 64 kbaud.

# LTC 4681 and LTC 4682 Series

The LTC 4681 and LTC 4682 Series are IEEE 802.3compliant transceivers designed especially for the transmission of 10/100BaseT Ethernet signals. Having no user adjustments, a quick and easy installation is guaranteed. The modules are designed to automatically detect MDI/MDI-X type cable connections, and are compatible with both 10 Mb/s and 100 Mb/s speeds. LED status indicators that provide a clear indication of operating parameters, and data connections are made to standard RJ-45 connectors.

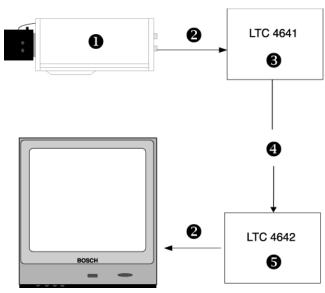
#### LTC 4637 Series Rack

The LTC 4637 Series Rack Units provide the option to rack-mount LTC 4600 Series Fiber Optic Modules in a standard EIA 48 cm (19 in.) rack. The unit incorporates an integral power supply that supplies power to all modules installed in the rack-mount unit. The supply also utilizes a standard IEC AC power connector for easy power cord replacement or exchange with various worldwide AC power plug configurations. Modules installed in the rackmount unit can be hot-swapped, so it is not necessary to power down the rack when removing or replacing modules. The integral power supply incorporates an automatic electronic current limiting feature for each individual rack-mount slot. This design eliminates the possibility of a single-point failure causing a complete shut down of the entire rack. The current limiting function is also self-resetting, should the fault or overload be of a temporary or intermittent nature.

## **Certifications and Approvals**

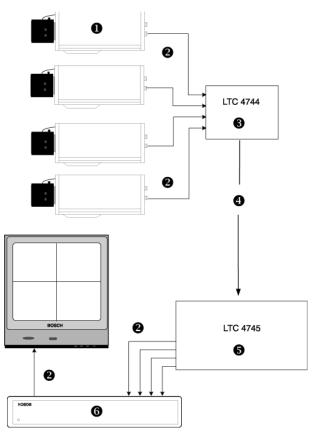
Electromagnetic Compatibility (EMC)	Complies with FCC Part 15, ICES-003 and CE regulations
Product Safety	Complies with CE regulations, UL, CSA, EN and IEC Standards
Laser Diode Models	Comply with FDA performance Standard for Laser Products, Title 21; Code of Fed- eral Regulations Subchapter J

#### Installation/Configuration Notes



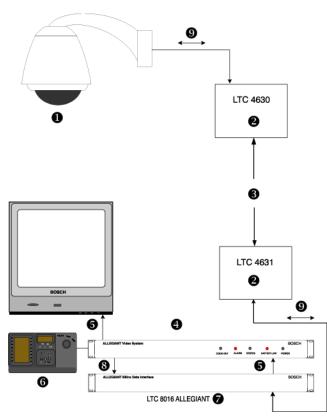
LTC 4641 and LTC 4642 Series Configuration

- 1 Camera
- 2 Coax Cable
- 3 Fiber Optic Video Transmitter
- 4 Fiber Optic Cable: Up to 4 km (2.5 miles) using 62.5/125 micron
- 5 Fiber Optic Video Receiver



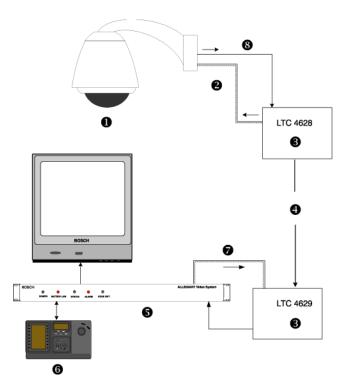
LTC 4744 and LTC 4745 Series Configuration

- 1 Camera
- 2 Coax Cable
- 3 Fiber Optic Video Transmitter
- 4 Fiber Optic Cable: Up to 3 km (1.9 miles) using 62.5/125 micron Multimode Fiber Optic Cable
- 5 Fiber Optic Video Receiver
- 6 Video Quad Unit



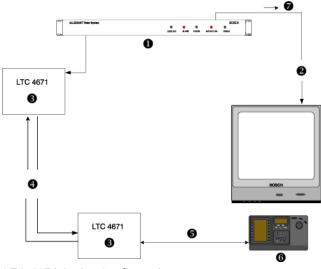
LTC 4630 and LTC 4631 Series Configuration

- 1 Bilinx Enables AutoDome Series Pan/Tilt/Zoom Camera
- 2 Fiber Optic Transceiver
- 3 Fiber Optic Cable: Up to 600 m (2000 ft) using 62.5/125 micron Multimode Fiber Optic Cable
- 4 Allegiant Series Switcher/Controller, Divar Digital Video Recorder, or other Bosch Security Systems Control System
- 5 Video
- 6 IntuiKey Series Keyboard
- 7 Bilinx Data Interface
- 8 Data
- 9 Video + Bilinx Data



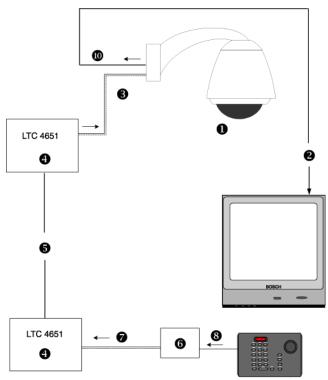
LTC 4628 and LTC 4629 Series Configuration

- 1 Bilinx Enables AutoDome Series Pan/Tilt/Zoom Camera
- 2 Bi-Phase Control Data Cable
- 3 Fiber Optic Transceiver
- 4 Fiber Optic Cable: Up to 4 km (2.5 miles) using 62.5/125 micron Multimode Fiber Optic Cable
- 5 Allegiant Series Switcher/Controller, Divar Digital Video Recorder, or System4 Series Multiplexer
- 6 IntuiKey Series Keyboard
- 7 Bi-Phase Control Data Cable
- 8 Video



LTC 4671 Series Configuration

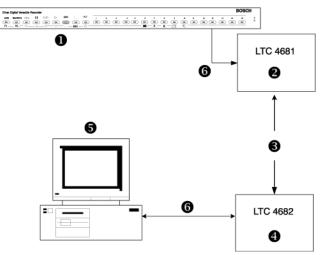
- 1 Allegiant Series Switcher/Controller, Divar Digital Video Recorder, or System4 Series Multiplexer
- 2 Separate Video Signal Transmission Link
- 3 Fiber Optic Data Transceiver
- 4 Up to 4 km (2.5 miles) using 62.5/125 micron Multimode Fiber Optic Cables
- 5 Keyboard Data
- 6 IntuiKey Series Keyboard
- 7 Video



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# LTC 4651 Series Configuration

- 1 AutoDome Series Pan/Tilt/Zoom Camera
- 2 Separate Video Signal Transmission Link
- 3 Bi-Phase Control Data Cable
- 4 Fiber Optic Data transceiver
- 5 Up to 3.5 km (2 miles) using 62.5/125 micron Multimode Fiber Optic Cable
- 6 Controller Junction Box
- 7 Bi-Phase Control Data Cable
- 8 Data
- 9 Controller
- 10 Video



#### LTC 4681 and LTC 4682 Series Configuration

- 1 Typical Divar Digital Video Recorder
- 2 Fiber Optic Data Receiver
- 3 Fiber Optic Cable: Up to 10 km (6.2 miles) using 62.5/125 micron Multimode Fiber Optic Cable
- 4 Fiber Optic Data Transceiver
- 5 PC Running Remote Viewer Software
- 6 10/100 Base-T Ethernet

# **Technical Specifications**

#### LTC 4641 and LTC 4642 Series

Models No.	Description	Power Source	Requires
LTC 4641/60	Mini Video Trans-	120 VAC,	LTC 4642 Series Re-
	mitter	50/60 Hz	ceiver
LTC 4641/50	Mini Video Trans-	230 VAC,	LTC 4642 Series Re-
	mitter	50/60 Hz	ceiver
LTC 4642/60	Video	120 VAC,	LTC 4641 Series
	Receiver	50/60 Hz	Transmitter
LTC 4642/50	Video	230 VAC,	LTC 4641 Series
	Receiver	50/60 Hz	Transmitter
LTC 4642/00	Video Receiver, Rack Module	LTC 4637 Rack	LTC 4641 Series Transmitter

1 Appropriate external power pack supplied with surface-mount models or power provided by LTC°4637 rack unit for rackmount models.

Power Requirements (surface-moun	t versions only)
Transmitter	9-12 VDC @ 150 mA; 10-14 VAC @ 200 mA
Receiver	12 VDC @ 150 mA
Number of Fibers	One (1)
Optical Budget	14 dB
Maximum Distance	4 km (2.5 miles)
Wavelength	850 nm
Optical Emitter	LED
Transmitter Output Power	25 uW (-16 dBm)
Technology Type	AM modulation, with AGC
Rack Slots Required when used with LTC 4637 Rack	One (1), (rack-mount version only)
Dimensions (surface-mount version)	
Transmitter (L x W x H)	6.4 x 4.1 x 2.5 cm (2.5 x 1.6 x 1.0 in.)
Receiver (L x W x H)	10.7 x 8.9 x 2.5 cm (4.2 x 3.5 x 1.0 in.)
Video Bandwidth	5 Hz to 10 MHz
Differential Gain	< 5%
Differential Phase	< 5°
Tilt	< 1%
Signal-to-noise Ratio(SNR)	> 55 dB @ 10 dB attenuation > 60 dB @ 7 dB attenuation
Shipping Weight	< 0.9 kg (2 lb)
MTBF	> 100,000 hours

# LTC 4744 and LTC 4745 Series

Models No.	Description	Power Source <sup>2</sup>	Requires
LTC 4744/60	4-ch. Video	120 VAC,	LTC 4745 Series
	Transmitter	50/60 Hz	Receiver
LTC 4744/50	4-ch. Video	230 VAC,	LTC 4745 Series
	Transmitter	50/60 Hz	Receiver

LTC 4744/00	4-ch. Video Transmitter Rack Module	LTC 4637 Rack	LTC 4745 Series Receiver	
LTC 4745/60	4-ch. Video Receiver	120 VAC, 50/60 Hz	LTC 4744 Series Transmitter	
LTC 4745/50	4-ch. Video Receiver	230 VAC, 50/60 Hz	LTC 4744 Series Transmitter	
LTC 4745/00	4-ch. Video Receiver Rack Module	LTC 4637 Rack	LTC 4744 Series Transmitter	
2 Appropriate external po mount models.	ower packs supplied with surfa	ace-mount models or power pro	vided by LTC 4637 rack unit for rack	
Power Require (surface-mount		+12 VDC @ 500	mA	
Number of Fibe	ers	One (1)		
Optical Budget		17 dB		
Maximum Dista	ince	3 km (1.9 miles)		
Wavelength 1310 nm				
Optical Emitter		Laser diode		
Technology Type		8-Bit digital video	o encoding	
Rack Slots Required when used with LTC 4637 Rack		Two (2), rack-mo	Two (2), rack-mount version only	
Dimensions (su	Irface-mount vers	ions)		
Transmitter (L x W x H)		17.8 x 12.5 x 2.5 cm (7.0 x 4.9 x 1.0 in.)		
Receiver (L x W x H)		17.8 x 12.5 x 5.0 cm (7.0 x 4.9 x 2.0 in.)		
Video Bandwid	th	10 Hz to 6.5 MHz		
Differential Gain		< 2%		
Differential Phase		< 0.7°		
Tilt		< 1%		
Signal-to-noise	Ratio (SNR)	60 dB @ maximum optical loss budget		
Shipping Weigh	nt	< 0.9 kg (2 lb)		
MTBF		> 100,000 hours		
1 TO 4620		1 Contoo		

# LTC 4630 and LTC 4631 Series

Models No.	Description	Power Source	Requires
LTC 4630/60	Video Transmitter/ Data	120 VAC,	LTC 4631 Se-
	Transceiver	50/60 Hz	ries
LTC 4630/50	Video Transmitter/ Data	230 VAC,	LTC 4631 Se-
	Transceiver	50/60 Hz	ries
LTC 4630/00	Video Transmitter/ Data Transceiver Rack Module	LTC 4637 Rack	LTC 4631 Se- ries
LTC 4631/60	Video Receiver/ Data	120 VAC,	LTC 4630 Se-
	Transceiver	50/60 Hz	ries
LTC 4631/50	Video Receiver/ Data	230 VAC,	LTC 4630 Se-
	Transceiver	50/60 Hz	ries
LTC 4631/00	Video Receiver/ Data Transceiver Rack Module	LTC 4637 Rack	LTC 4630 Se- ries

3 Appropriate external power packs supplied with surface-mount models or power provided by LTC 4637 rack unit for rack-mount models.

Power Requirements (surfa	ce-mount versions only)
LTC 4630	24 VAC C.T., 11-14 VDC @ 200 mA
LTC 4631	12 VDC @ 200 mA
Number of Fibers	One (1)
Optical Budget	14 dB
Maximum Distance for Bilinx Transmissions	600 m (2000 ft)
Technology Type	AM Video modulation
Wavelength	850 nm / 1310 nm
Optical Emitter	LED
Transmitter Output Power	25 uW (-16 dBm)
Rack Slots Required when used with LTC 4637 Rack	One (1), rack-mount version only
Dimensions (surface-mount versions) (L x W x H)	17.8 x 12.5 x 2.5 cm (7.0 x 4.9 x 1.0 in.)
Video Bandwidth	5 Hz to 10 MHz
Differential Gain	< 5%
Differential Phase	< 5°
Tilt	< 1%
Signal-to-noise Ratio (SNR)	> 55 dB @ 10 dB attenuation
Shipping Weight	< 0.9 kg (2 lb)
MTBF	> 100,000 hours

# LTC 4628 and LTC 4629 Series

Models No.	Description	Power Source 4	Requires
LTC 4628/60	Video/Data	120 VAC,	LTC 4629 Series
	Transceiver	50/60 Hz	Transceiver
LTC 4628/50	Video/Data	230 VAC,	LTC 4629 Series
	Transceiver	50/60 Hz	Transceiver
LTC 4628/00	Video/Data Transceiver Rack Module	LTC 4637 rack	LTC 4629 Series Transceiver
LTC 4629/60	Data/Video	120 VAC,	LTC 4628 Series
	Transceiver	50/60 Hz	Transceiver
LTC 4629/50	Data/Video	230 VAC,	LTC 4628 Series
	Transceiver	50/60 Hz	Transceiver
LTC 4629/00	Data/Video Transceiver Rack Module	LTC 4637 Rack	LTC 4628 Series Transceiver

4 Appropriate external power packs supplied with surface-mount models or power provided by LTC\*4637 rack unit for rack-mount models.

Power Requirements (surface-mount versions only)		
LTC 4628	24 VAC C.T., 11-14 VDC @ 200 mA	
LTC 4629	12 VDC @ 200 mA	
Number of Fibers	One (1)	
Optical Budget	14 dB	
Maximum Distance	4.0 km (2.5 miles)	
Technology Type	AM Video modulation	
Wavelength	850 nm / 1310 nm	
Optical Emitter	LED	

Transmitter Output Power	25 uW (-16 dBm)
Rack Slots Required (when used with LTC 4637 Rack)	One (1), rack-mount version only
Dimensions (surface-mount versions) (L x W x H)	17.8 x 12.5 x 2.5 cm (7.0 x 4.9 x 1.0 in.)
Video Bandwidth	5 Hz to 10 MHz
Differential Gain	< 5%
Differential Phase	< 5°
Tilt	< 1%
Signal-to-noise Ratio (SNR)	> 55 dB @ 10 dB attenuation > 60 dB @ 7 dB attenuation
Data Rate	DC to 100 kbps (NRZ)
Shipping Weight	< 0.9 kg (2 lb)
MTBF	> 100,000 hours

# LTC 4671 Series

Models No.	Description	Power Source	Requires
LTC 4671/60	RS-485 Transceiver	120 VAC, 50/60 Hz	LTC 4671 Series Transceiver
LTC 4671/50	RS-485 Transceiver	230 VAC, 50/60 Hz	LTC 4671 Series Transceiver
LTC 4671/00	RS-485 Transceiver Rack Module	LTC 4637 Rack	LTC 4671 Series Transceiver
5 Appropriate external pov rack-mount models.	ver packs supplied with surf	ace-mount models or powe	er provided by LTC°4637 rack unit for
Power Requiren (surface-mount		12 VD	C @ 200 mA
Number of Fiber	S	Two (2	2)
Optical Budget		14 dB	
Maximum Distar	nce	4.0 km	n (2.5 miles)
Wavelength		850 nr	n
Optical Emitter		LED	
Transmitter Out	put Power	25 uW	(-16 dBm)
Rack Slots Requ LTC 4637 Rack)	ired (when used )	with One (1 only	), rack-mount version
Dimensions (sur (L x W x H)	face-mount vers	,	12.5 x 2.5 cm 4.9 x 1.0 in.)
Data Rate		DC to 2	150 kbps
Shipping Weight	t	< 0.9	(g (2 lb)
MTBF		> 100,	,000 hours

## LTC 4651 Series

Models No.	Description	Power Source 6	Requires
LTC 4651/60	Biphase/RS-232 Transceiver	120 VAC, 50/60 Hz	LTC 4651 Se- ries Transceiv- er
LTC 4651/50	Biphase/RS-232 Transceiver	230 VAC, 50/60 Hz	LTC 4651 Se- ries Transceiv- er

LTC 4651/00	21011000/110 202	LTC 4637 Rack	LTC 4651 Se- ries Transceiv- er
6 Appropriate external po for rack-mount models.	ower packs supplied with surface-mount	t models or power pro	ovided by LTC°4637 rack unit
Power Requirements (surface-mount versions only)		12 VDC @	0 150 mA
Number of Fibe	ers	simplex F sions;	or Bi-Phase and IS-232 transmis- or duplex RS-232 sions
Optical Budget		14 dB	
Maximum Dista	ince	3.5 km (2	2 miles)
Wavelength		850 nm	
Optical Emitter		LED	
Transmitter Ou	tput Power	25 uW (-	16 dBm)
Rack Slots Req 4637 Rack)	uired (when used with L <sup>-</sup>	TC One (1), sion only	rack-mount ver-
Dimensions (su (L x W x H)	Irface-mount versions)		9 x 2.5 cm 5 x 1.0 in.)
Data Rate		DC to 1.5	Mbps (NRZ)
Shipping Weigh	nt	< 0.9 kg	(2 lb)
MTBF		> 100,00	00 hours

# LTC 4681 and LTC 4682 Series

Models No.	Description	Power Source 7	Requires
LTC 4681/60	Ethernet	120 VAC,	LTC 4682 Series
	Transmitter	50/60 Hz	Receiver
LTC 4681/50	Ethernet	230 VAC,	LTC 4682 Series
	Transmitter	50/60 Hz	Receiver
LTC 4681/00	Ethernet Trans- mitter Rack Module	LTC 4637 Rack	LTC 4682 Series Receiver
LTC 4682/60	Ethernet	120 VAC,	LTC 4681 Series
	Receiver	50/60 Hz	Transmitter
LTC 4682/50	Ethernet	230 VAC,	LTC 4681 Series
	Receiver	50/60 Hz	Transmitter
LTC 4682/00	Ethernet Re- ceiver Rack Module	LTC 4637 Rack	LTC 4681 Series Transmitter

 $7 \, \text{Appropriate external power pack supplied with surface-mount models or power provided by LTC^{o}4637 \, \text{rack unit for rack-mount models}}$ mount models.

Power Requirements (surface-mount versions only)	12 VDC @ 200 mA
Number of Fibers	One (1)
Optical Budget	10 dB
Maximum Distance	10 km (6.2 miles)
Wavelength	1310 nm / 1550 nm
Optical emitter	LED
Rack Slots Required when used with LTC 4637 Rack	Two (2),rack-mount version only

Rack Slots Required when used with LTC T	wo (2),rack-mount version
4637 Rack o	only

Dimensions (surface-mount versions) (L x W x H)	17.8 x 12.5 x 2.5 cm (7.0 x 4.9 x 1.0 in.)
Shipping Weight	< 0.9 kg (2 lb)
MTBF	> 100,000 hours

#### LTC 4637 Series Rack

Models No.	Input Voltage	e Voltage Range	Output Voltage	Max Power $^1$
LTC 4637/60	120 VAC, 50/60 Hz	108 to 132	20 VAC	80 W
LTC 4637/50	230 VAC, 50/60 Hz	198 to 264	20 VAC	80 W
1. Maximum power dissip	ation (fully loaded).			
Construction		Modular style a detachable IEC		
Number of Slots		14		
Indicators		Power supply pilot lamp		
Power Supplied to Modules		20 VAC, Center tapped @ 4.0 A		
Fusing		One (1) slow-blow for rack power supply; modules individually electronically fused		
Connectors	Connectors AC line cord; 3-terminal adaptor socket per slot		aptor sockets,	
Dimensions (L )	(WxH)	48.3 x 17.8 x 1 (19.0 x 7.0 x 5		
Shipping Weigh	t	< 2.15 kg (< 5	lb)	

#### **Common Specifications**

NOTE: Specifications noted below apply to all models unless otherwise specified in applicable model section.		
Optical Connector Type	ST	
Optical Fiber Compatibility	$50/125~\mu m$ or $62.5/125~\mu m$ , graded index multimode glass fiber rated for a minimum bandwidth of 600 MHz-Km. For $50/125$ fiber, subtract 4 dB from the specified optical budget value.	
Optical Distance Specifications	Specified transmission distances are lim- ited to the optical loss of the fiber and any additional loss introduced by connectors, splices, and patch panels. The modules are designed to operate over the entire optical loss budget range, so they do not require a minimum loss in order to operate.	
Data and Power Connections	Removable screw terminal blocks	
Construction	Surface-mountable metal enclosure de- signed to maximize EMI/RFI shielding	
Environmental		
Operating	-40°C to 74°C (-40°F to 165°F)	
Storage	-40°C to 85°C (-40°F to 185°F)	
Humidity	0% to 95% relative, non-condensing	
Product Regulatory Compl	iance	
Accessories		
LTC 4600/00 blank papel	(1 rack slot) Used to cover unused slots in LTC	

LTC 4600/00 blank panel (1 rack slot). Used to cover unused slots in LTC °4637 Series racks.

Replacement Power Supply Part Numbers

TC120PS	For 120 VAC, 50/60 Hz models
TC220PS	For 230 VAC, 50/60 Hz models

Ordering Information	
LTC 4600/00 Blank Panel to cover one slot of the LTC 4637 48-cm (19-in.) rack	896046000001
LTC 4628/50 Video/Data Transceiver 850 nm FOM, 230 VAC, 50 Hz	896046285001
LTC 4628/60 Video/Data Transceiver 850 nm FOM, 120 VAC, 60 Hz	896046286001
LTC 4628/00 Video/Data Transceiver, Rack Module 850 nm FOM, receives data, use with LTC 4637 series rack	896046280001
LTC 4629/50 Data/Video Transceiver 850 nm FOM, 230 VAC, 50 Hz	896046295001
LTC 4629/60 Data/Video Transceiver 850 nm FOM, 120 VAC, 60 Hz	8960462 6001
LTC 4629/00 Data/Video Transceiver, Rack Module 850 nm FOM, use with LTC 4637 series rack	896046290001
LTC 4630/50 Video Transmitter/Data Transceiver 850/1310 nm FOM, side A, 230 VAC, 50/60 Hz	896046305001
LTC 4630/60 Video Transmitter/Data Transceiver 850/1310 nm FOM, side A, 120 VAC, 50/60 Hz	896046306001
LTC 4631/50 Video + Bilinx Fiber Receiver 850/1310 nm FOM, side B, 230 VAC, 50/60 Hz	896046315001
LTC 4631/60 Video + Bilinx Fiber Receiver 850/1310 nm FOM, side A, 120 VAC, 50/60 Hz	896046316001
LTC 4631/00 Video + Bilinx Fiber Receiver, Rack Module 850/1310 nm FOM, side B, use with LTC 4637 series rack	896046310001
LTC 4637/50 Rack and Power Supply for FOM, 48 cm (19 in.), 230 VAC, 50 Hz	896046375001
LTC 4637/60 Rack and Power Supply for FOM, 48 cm (19 in.), 110 VAC, 60 Hz	896046376001
LTC 4641/50 Mini Video Transmitter Video fiber transmitter, 850 nm, 230 VAC, 50 Hz	896046415001
LTC 4641/60 Mini Video Transmitter 850 nm FOM, video signals, 120 VAC, 60 Hz	896046416001
LTC 4642/60 Video Receiver 850 nm, 120 VAC, 60 Hz	896046426001
LTC 4642/50 Video Receiver 850 nm, 230 VAC, 50 Hz	896046425001
LTC 4642/00 Video Receiver, Rack Module 850 nm FOM, video signals, use with LTC 4637 series rack	896046420001
LTC 4651/50 Bi-Phase/RS-232 Transceiver 850 nm FOM, 230 VAC, 50 Hz	896046515001
LTC 4651/60 Bi-Phase/RS-232 Transceiver 850 nm, FOM, 120 VAC, 60 Hz	896046516001

## **Ordering Information**

LTC 4651/00 Bi-Phase/RS-232 Transceiver, Rack Module 850 nm FOM, use with LTC 4637 series rack	896046510001
LTC 4671/50 RS-485 Transceiver 850 nm FOM, RS-485 data, 230 VAC, 50 Hz	896046715001
LTC 4671/60 RS-485 Transceiver 850 nm, 120°VAC, 60 Hz	896046716001
LTC 4671/00 RS-485 Transceiver, Rack Module 850 nm FOM, use with LTC 4637 series rack	896046710001
LTC 4681/50 Ethernet Transmitter 1310/1550 nm FOM, side A, 10/100 Base-T Ethernet, 230 VAC, 50/60 Hz	896046815001
LTC 4681/60 Ethernet Transmitter 1310/1550 nm FOM, side A, 10/100 Base-T Ethernet, 120 VAC, 50/60 Hz	896046816001
LTC 4681/00 Ethernet Transmitter, Rack Module 10/100 Base-T Ethernet, use with LTC 4637 se- ries rack	896046810001
LTC 4682/50 Ethernet Receiver 1310/1550 nm FOM, side B, 10/100 Base-T Ethernet, 230 VAC, 50/60 Hz	896046825001
LTC 4682/60 Ethernet Receiver 1310/1550 nm FOM, side B, 10/100 Base-T Ethernet, 120 VAC, 50/60 Hz	896046826001
LTC 4682/00 Ethernet Receiver, Rack Module 1310/1550 nm FOM, side B, 10/100 Base-T Ethernet, use with LTC 4637 series rack	896046820001
LTC 4744/50 Transmitter 1310 nm FOM, 4 channel, video signals, 230 VAC, 50/60 Hz	896047445001
LTC 4744/60 Transmitter 1310 nm FOM, 4 channel, video signals, 120 VAC, 50/60 Hz	896047446001
LTC 4744/00 Transmitter, Module Rack 1310 nm FOM, 4 channel, video signals, use with LTC 4637 series rack	896047440001
LTC 4745/50 Receiver 1310 nm FOM, 4 channel, video signals, 230 VAC, 50/60 Hz	896047455001
LTC 4745/60 Receiver 1310 nm FOM, 4 channel, video signals, 120 VAC, 50/60 Hz	896047456001
LTC 4745/00 Receiver, Rack Module 1310 nm FOM, 4 channel, video signal, use with LTC 4637 series rack	896047450001

Americas: Bosch Security Systems 130 Perinton Parkway Fairport, New York, 14450, USA Phone: +1 585 223 4060 Fax: +1 800 289 0096 security.sales@us.bosch.com www.boschsecurity.us

Europe, Middle East, Africa: Bosch Security Systems B.V. P.O. Box 80002 5600 JB Eindhoven, The Netherlands Phone: +31 40 27 88668 Fax: +31 40 27 88668 emea.securitysystems@bosch.com www.boschsecurity.com

Asia-Pacific: Bosch Security Systems Pte Ltd 38C Jalan Pemimpin Singapore 577180 Phone: +65 6319 3450 Fax: +65 6319 3499 apr.securitysystems@bosch.com www.boschsecurity.com

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