

MULTISHACK™ conversion system

The MULTISHACK™ is a conversion system from multiple SMPTE connectors/cable to a single multiway fibre cable. The system provides a transition from HD over hybrid (copper and fibre) cables to HD over a single multiway fibre optic cable.

The MULTISHACK™ enables up to 6 cameras to be individually powered from one remote source (i.e. a local generator) through the 3K.93C connectors and cables. The optical signals will continue to be transmitted through individual pairs of fibres within a multiway fibre optic cable.

The power is inserted at the Camera end MULTISHACK™ via a waterproof mains/power

connector and is distributed to the hybrid cables through individual circuits. The CCU/OB MULTISHACK $^{\text{\tiny M}}$ is powered by the output voltage from the CCU.

The MULTISHACK™ uses the technology proven in the SHACK™ and has individual transmission circuits ensuring a manufacturer protection handshake for each channel.











Technical characteristics

Characteristics	Values
Fibre type	Singlemode
Hybrid connector	LEMO 3K.93C Series
Multifibre connector	LEMO 5K Series
Temperature range	-20°C to +60°C
CCU supply voltage range	15 V to 360 V
EMI/RFI	Complies with 89/336/EEC
Electrical	Complies with EN 61000-6-1, EN61000-6-2
Laser Safety	Complies with Class 1 laser product 24 CFR 1040.10 & 1040.11
Humidity range	Up to 95%
Warranty	5 years
Return loss	Better than 45 dB per channel
Average insertion loss	0.4 dB per channel

Manufacturer	Part number	Description	No
SONY (blue)	PXE.MX.C61.AS	Camera end/for Sony model/6 way	1
	PFD.MX.V16.AS	CCU end/for Sony camera model/6 way	2
	PFT.MX.R16.AS	Break out box for ST fibre Camera end	3
	PTE.MX.R61.AS	Break out box for ST fibre CCU end	4
	PFC.MX.R16.AS	Break out box for SC fibre Camera end	3
	PCE.MX.R61.AS	Break out box for SC fibre CCU end	4

Features

- Converts from SMPTE 304 connectors to a single multiway fibre optic cable
- Plugs directly into camera/base station via cable
- Allows connection of up to 6 cameras
- Redundant power supply

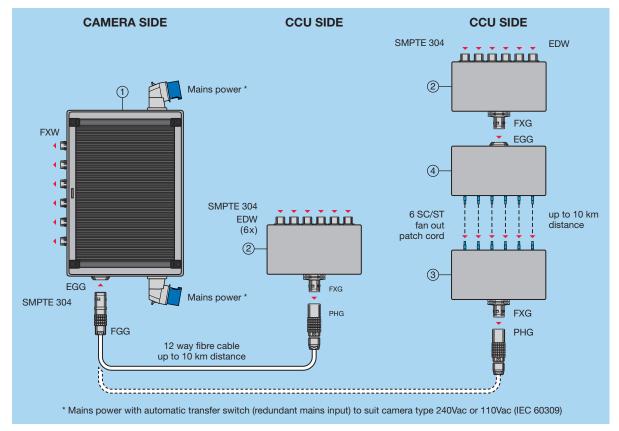
Advantages

- Plug & play solution
- One multiway cable is cheaper than multiple SMPTE 311 hybrid cables
- The 6 cameras can be powered without additional mains / DC leads to every camera

Applications

- Golf, skiing, auto racing, olympic games
- Stadiums, racing tracks
- Wherever multiple cameras are needed in a remote location

Notes: For a Grass Valley™ version, replace last digit of the part number "S" by "T". Sony® version is blue and Grass Valley™ version is grey.



LEMO HEADQUARTERS

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MULTISHACK-3X™ conversion system

The MULTISHACK-3X[™] is a conversion system from multiple SMPTE connectors/cable to a single multiway fibre cable. The system provides a transition from HD over hybrid (copper and fibre) cables to HD over a single multiway fibre optic cable.

The MULTISHACK-3X™ enables up to 3 cameras to be individually powered from one remote source (i.e. a local generator) through the 3K.93C connectors and cables. The optical signals will continue to be transmitted through individual pairs of fibres within a multiway fibre optic cable.

The power is inserted at the Camera end MULTISHACK- $3X^{\text{TM}}$ via a waterproof mains /

power connector and is distributed to the hybrid cables through individual circuits. The CCU / OB MULTISHACK-3X $^{\rm TM}$ is powered by the output voltage from the CCU.

The MULTISHACK- $3X^{TM}$ uses the technology proven in the SHACKTM and has individual transmission circuits ensuring a manufacturer protection handshake for each channel.











Technical characteristics

Characteristics	Values
Fibre type	Singlemode
Hybrid connector	LEMO 3K.93C Series
Multifibre connector	LEMO 4K Series
Temperature range	-20°C to +60°C
CCU supply voltage range	15 V to 360 V
EMI/RFI	Complies with 89/336/EEC
Electrical	Complies with EN 61000-6-1, EN61000-6-2
Laser Safety	Complies with Class 1 laser product 24 CFR 1040.10 & 1040.11
Humidity range	Up to 95%
Warranty	5 years
Return loss	Better than 45 dB per channel
Average insertion loss	0.4 dB per channel
Weight	17 kg

Manufacturer	Part number	Description	No
Grass Valley™ (grey)	PXG.MX.C31.AT	Camera end/for Grass Valley™ model/3 way	1
	PHD.MX.V13.AT	CCU end/for Grass Valley™ camera model/3 way	2
	PHT.MX.R13.AT	Break out box for ST fibre Camera end	3
	PTG.MX.R31.AT	Break out box for ST fibre CCU end	4
	PHC.MX.R13.AT	Break out box for SC fibre Camera end	3
	PCG.MX.R31.AT	Break out box for SC fibre CCU end	4

Features

- Converts from SMPTE 304 connectors to a single multiway fibre optic cable
- Plugs directly into camera/base station via cable
- Allows connection of up to 3 cameras
- Redundant power supply

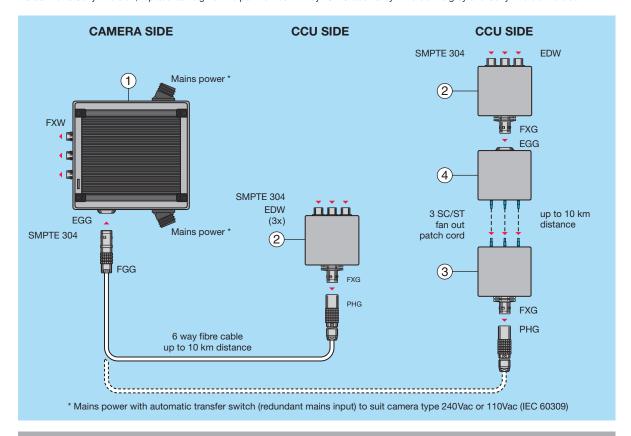
Advantages

- Plug & Play solution
- One multiway cable is cheaper than multiple SMPTE 311 hybrid cables
- The 3 cameras can be powered without additional mains / DC leads to every camera

Applications

- Golf, skiing, auto racing, olympic games
- Stadiums, racing tracks
- Wherever multiple cameras are needed in a remote location

Notes: For a Sony® version, replace last digit of the part number "T" by "S". Grass Valley™ version is grey and Sony® version is blue.



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