

Fiber Optic Triax Camera Extender Modular—For Ikegami®, Philips® and Sony® broadcast cameras

US Patent
6,115,159



Applications

- Sports teleproduction
- Metropolitan production
- Golf, skiing, racing, etc.
- Cross-campus production
- Remote camera links
- Outside broadcasting

Cobra Features

- Complete camera control
- Reach to 20 kilometers
- All 2-way triax signals
- Component video
- Return video & genlock
- Audio, intercom & IFB
- Control data & tally
- Modular camera interfaces
- Portable, lightweight units
- Provides camera power
- Drives long triax runs
- Installs & strikes quickly
- Also compatible with Telco/CATV fiber cables

The fiber optic extension cord for triaxial cameras

The Cobra™ represents a breakthrough in television production. It is the industry's first and only high performance link that interconnects triax-equipped cameras to their base stations using lightweight fiber optic cable. Just change modules to make your Cobra compatible with most cameras and base stations, including Sony, Philips, and Ikegami. Plug in your fiber and triax, and you're on the air.

Ten Times the Distance

Get those camera shots you can't reach with triax. The lightweight Cobra allows you to locate your camera up to 20 kilometers from the base station, with no repeaters or equalizing. It even supports return video over long distance.

Preserves Wideband Component Quality

Fiber cable eliminates all electro-

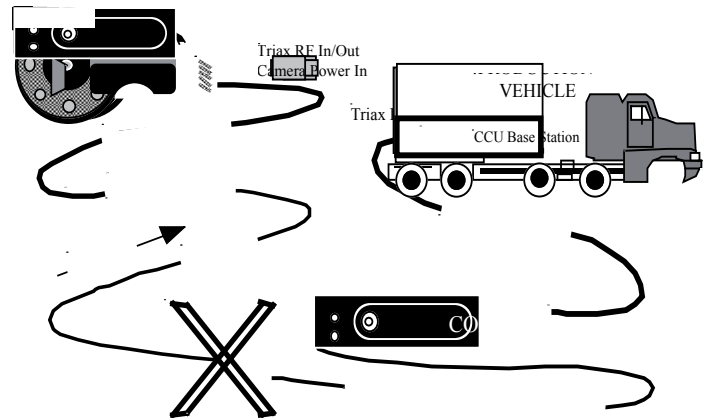
magnetic and radio frequency interference, as well as ground faults and hum. Cobra maintains wideband component video performance, preserving high resolution pictures over long distances.

Fiber cable saves labor, lasts longer

Fiber optic cables deploy (and take up) faster and easier, saving manpower costs. Plus, fiber cable is more durable than triax — it stands up to crushing; resists punctures (from golf spikes, etc.); and cannot corrode. If it does ever need replacement, fiber cable costs far less than triaxial assemblies.

Control crosstown cameras

Share production facilities among several city-wide or facility-wide venues. Use



fiber optic backbone cables in your building or campus, between your stadium and arena, or use metropolitan fiber backbones from your carrier or access provider of choice.

Provides power, too

Cobra also powers your camera — by reinserting power through as much as 1,000 ft (300m) of triaxial cable, depending on camera/CCU model.

Tac™ Fiber Cable

- Lightweight and small
- Tougher than Triax
- Cannot corrode
- Military, tactical design
- Flexible in cold weather
- Electrical isolation
- Immune to RFI and RFI
- Immune to crosstalk
- Immune to lightning
- No ground faults or hum
- High optical bandwidth over long distances

Specifications

Plug-in modules keep your Cobra compatible as cameras & CCUs change. Match your CCU/base station to the Cobra plug-in modules:

-C designates camera end module; -BS designates base station end module

Module	Base Station	Manufacturer
SB-1-C	BS-323	Ikegami
SB-1-C	BS-323/A	Ikegami
SB-1-C	BS-355	Ikegami
SB-1-C	BS-366	Ikegami
SB-1-C	BS-375	Ikegami
SB-1-C	BS-377/LR	Ikegami
SB-1-C	BS-553	Ikegami
SB-1-C	CCU-370	Sony
SB-1-C	DCU-370	Sony

WB-1-C	BS-388	Ikegami
WB-1-C	BS-40/TA40	Ikegami
WB-1-C	CCU-500/550	Sony
WB-1-C	CCU-700/750	Sony

SS-1-C	BVP-9000 "Super Slo-Mo"	Sony
D30-1-C	DXC30 with CCU-TX7	Sony

.....Note: Above modules are for camera end. Base station end for all above is S/WB-1-BS

WB-2-C/-BS	BS-377	Ikegami
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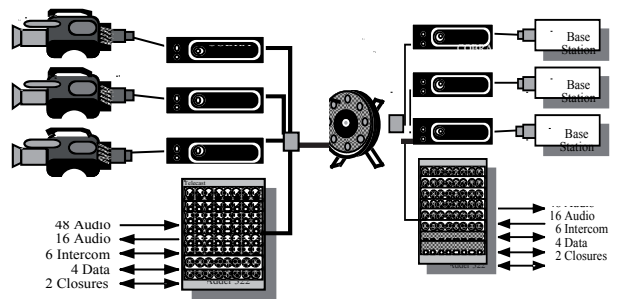
LD-1-C/-BS	LDK-4000 series*	Philips
for LDK-9, LDK-10, LDK-20 & LDK-100 cameras		
LD-2-C/-BS	LDK-23*	Philips

*requires Philips CCU module change beyond 4 km (LD-1) or 1 km (LD-2)

NEW COBRA MODULES FOR HDTV
FOR SONY HDC750A AND OTHERS
ON LIGHTWEIGHT TAC FIBER CABLES
SEE OUR COBRA-HD DATA SHEET



Announce Booth Application with Adder & 3 Cobras



With 3 Cobras and Telecast's Adder™, you can run 3 triax equipped cameras plus 64 studios, multiple intercoms and auxiliary data, all on one 1/4-inch Tac 4 cable.

<< Convenient Cobra handle for easy carrying. You can hang the unit with all connectors facing downward for environmental protection, or use it in a standard 19-inch rack installation.

Transmission

Aggregate Bandpass (bidirectional).....	≈ 100 MHz
Optical Source.....	Laser Diode
Fiber Type.....	Single-Mode
Link Margin/Distance (typical).....	14 dB/20 km
Wavelength (from camera/to camera).....	1300/1550 nm
Input/Output Impedance.....	75 Ω
Operates on 2-fibers (via WDM) for low cost, or on 1-fiber for high fiber efficiency.	

efficiency.

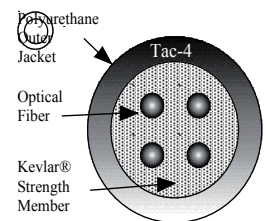
Mechanical/Environmental

Enclosure Dimensions each end (LxWxH).....	16.7" x 10.5" x 3.5"
Weight, Base Station End.....	.8 lbs
Weight, Camera End.....	14 lbs
Connectors, modular plates, user reconfigurable	
Triaxial (Signal and Power).....	Kings Tri-Loc® (standard)
Optical.....	SC/APC Single Mode (standard)
Input Voltage, Specify.....	100 VAC, 120 VAC or 240 VAC
Output Voltage to Camera.....	240 VAC
Triaxial range, Cobra to Camera, typical, CCU dependent.....	300 meters
Power Consumption, each end, excluding camera power.....	< 10 Watts
Indicators.....	Carrier presence, High Voltage presence, AC in, RX Status
Temperature Range, operating.....	-40° C to +55° C

Tac-Series™ Fiber Optic Cables

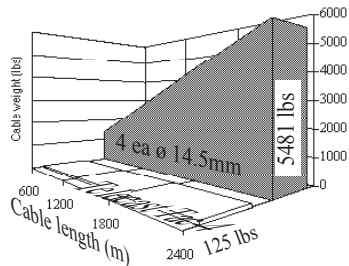
The Cobra™ can be used with industry standard fiber optic cable. For rugged field applications, Telecast provides military tactical optical cables, with from one to twelve fiber conductors. The Tac-4-HD is our most popular cable—only 6 mm OD, weighing just 20 lb/1,000 ft.

See Telecast Cable Data Sheets for full info.



How much time and effort can you save?

over 98% savings



Comparing the weight of four (4) triaxial cables to one 4-fiber tactical cable.

Each fiber conductor carries all 2-way video, audio, intercom, data and control signals between a camera and its base station.

Each 600 meter length of Tac 4 fiber cable saves you half a ton compared to triax.

