HDX-Plus, Power Plus 2 & SHED

Power Solutions for Broadcast Cameras

Lightweight, easy-to-deploy fiber connectivity solutions.

The new generation HDX-Plus from Grass Valley, a Belden Brand, allows you to extend the distance between the camera's CCU and HDX-Plus over fiber, and supply power from the HDX-Plus over SMPTE hybrid cable to the camera. The HDX-Plus is compatible with Grass Valley's LDX range of cameras and Sony cameras.

In addition, when HDX-Plus is used with Power Plus 2, it can be matched with any camera manufacturer when either an Anton Bauer or IDX power plate is available. Power Plus 2 replaces the on-board battery and provides up to 200W over 3 km (1.86 mi.) to the camera.

HDX-Plus is compatible with SHED-BS when SMPTE power is required to be eliminated and converted to a fiber-only connection from CCU to HDX-Plus.

SHED stands for SMPTE Hybrid Elimination Device, and that is what it is. It is a small adapter that allows you to use ordinary single-mode optical fiber for HD (and slow motion) camera links and in venue/facility infrastructure, and eliminate bulky hybrid wire/fiber.

A SHED adapter is usually deployed with the HDX-Plus camera power unit. You can use two small SHED adapters — one at your base station and one at your camera — and locally power your camera, or use the HDX-Plus unit to power the camera through the hybrid tail cable.

HDX-Plus, Power Plus 2 & SHED Power Solutions for Broadcast Cameras

KEY FEATURES

- Allows the use of conventional single-mode fiber cable:
  - Infrastructure fiber
  - Tactical fiber cable
- Uses common ST, SC, LC, MX or OpticalCON connectors for the fiber link
- Uses common SMPTE ST 304 connectors for a hybrid link
- Extends manufacturer's distance limits of the camera/CCU
- Long distance range:
  - HDX-Plus to CCU distance over two fibers: up to 10 km (6.21 mi.; depends on camera manufacturer optical budget)
  - HDX-Plus to Power Plus 2 distance over SMPTE hybrid cable: up to 5 km (3.1 mi.) with power

- Supports Grass Valley and Sony cameras
- Supports any camera manufacturer with HDX-Plus and Power Plus 2 link
- Anton/Bauer and V-Battery mounting options for Power Plus 2
- Wide operating temperature range
- Low power consumption
- SHEDs are small, lightweight adapters
- Built-in optical power meter
- Front panel status monitoring
- Fast plug and play operation
- All camera signals on lightweight fiber cable
- HDX also supports CopperHead and T-POV Systems

SPECIFICATIONS

Electro-Optical

Fiber type: Single mode

Note: HDX-Plus, Power Plus 2 and SHED are optically passive

Compatible Cameras

Grass Valley: LDX Series and Focus 70 & 75

Sony: Sony HDC-1K series, HDC-2K series and HDC-4K series

Mechanical/Environmental

Dimensions (W x H x D):

HDX-Plus: 209.55 x 76.20 x 406.40 mm (8.25 x 3 x 16 in.)

Power Plus 2: 108.71 x 167.64 x 63.50 mm (4.28 x 6.60 x 2.50 in.)

SHED: 190.5 x 50.8 x 63.5 mm (7.5 x 2 x 2.5 in.)

SHED-6: 441.96 x 44.45 x 228.6 mm (17.4 x 1.75 x 9 in.)

Weight:

HDX-Plus: 2.72 kg (6.0 lbs.)

Power Plus 2: 1.25 kg (2.75 lbs.)

SHED: 0.45 kg (1 lbs.)

Temperature range:

HDX-Plus: -25° to 55° C (13° to 131° F)

Power Plus 2: -25° to 50° C (13° to 131° F) (with internal fan enabled)

SHED: -25° to 55° C (13° to 131° F)

Humidity range:

HDX-Plus: 0 to 95% RH

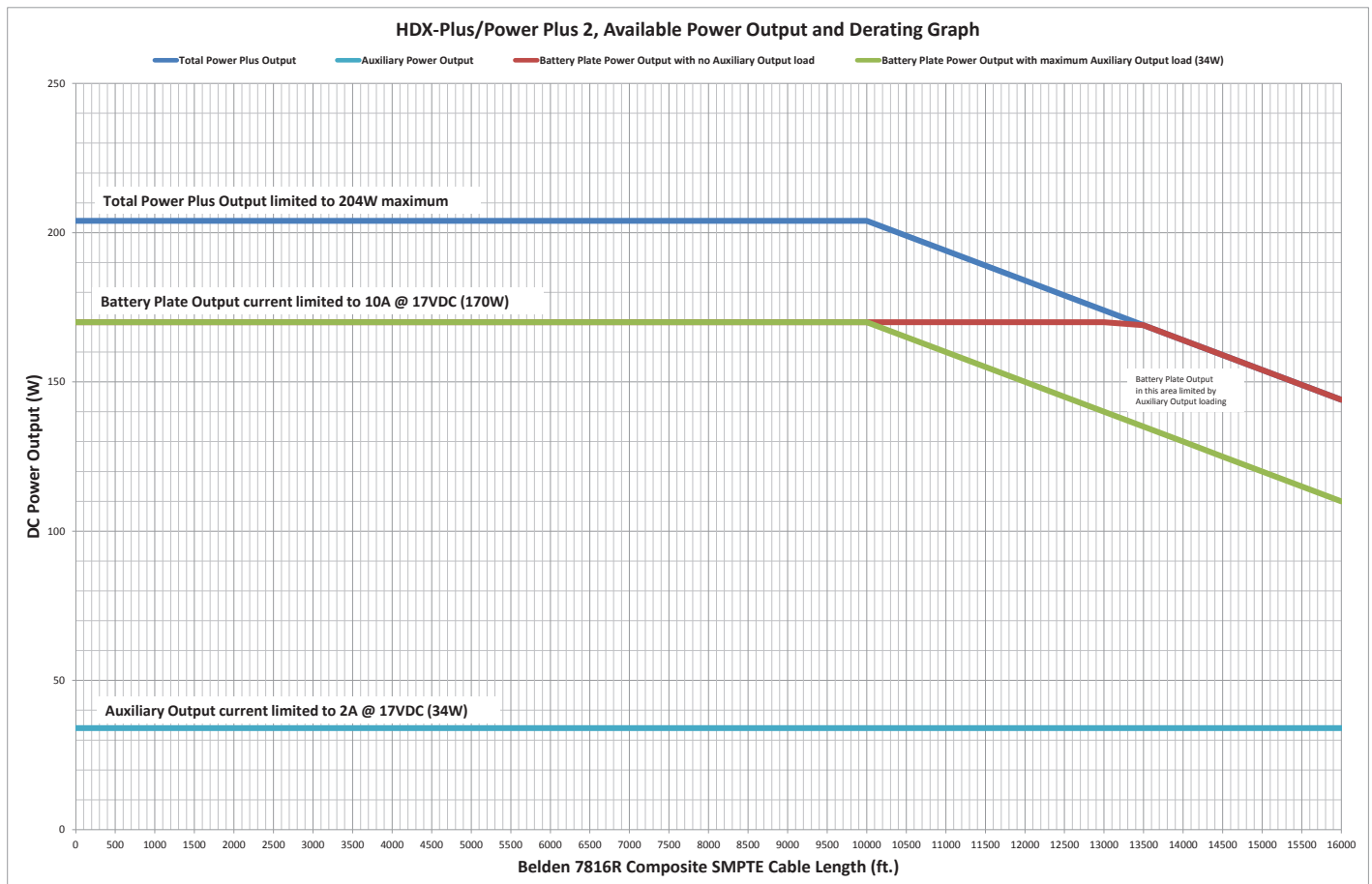Power Plus 2: 0 to 95% RH

SHED: 0 to 95% RH

Power Consumption

HDX-Plus with Power Plus 2: 85-265 VAC, 47-63 Hz., 450 VA max.

Power Output

Refer to chart below

* Maximum length of SMPTE cable with power varies with the camera system configuration, lens type, viewfinder type, size of the optical fiber cable and the number of cable connectors.

HDX-Plus/Power Plus 2, Available Power Output and Derating Graph

HDX-Plus, Power Plus 2 & SHED Power Solutions for Broadcast Cameras

ORDERING

HDX-Plus
HDX-PLUS HDX-Plus, with LEMO, for PP2, LDX, Focus and Sony Cameras (UFP required on both ends)

UFP Plates (Customer specifies fiber connector — only 1 allowed)
UFP-2LC Dual LC connector
UFP-2SC 2 SC fiber, ultra polished
UFP-2SCA 2 SC fiber, angle polished
UFP-2STSM 2 ST fiber connectors
UFP-MX2 MX dual fiber
UFP-NOC2 Neutrik OpticalCon Duo 2 Fibers

Options for HDX-Plus
HDX-ENCL HDX, HDX-Plus waterproof enclosure

Power Plus 2
PWRPL2-304-V Power Plus 2 camera power adapter: SMPTE ST 304 dongle & SMPTE ST 304 receptacle on swivel, 17 VDC IDX V mount. HDX-Plus required.
PWRPL2-304-AB Power Plus 2 camera power adapter: SMPTE ST 304 dongle & SMPTE ST 304 receptacle on swivel, 17 VDC Anton/Bauer mount. HDX-Plus required.
PWRPL2-NEU-AB Power Plus 2 camera power adapter: Neutrik Optical Con on & SMPTE ST 304 receptacle on swivel, 17 VDC Anton/Bauer mount. HDX-Plus required.
PWRPL2-NEU-V Power Plus 2 camera power adapter: Neutrik Optical Con on dongle & SMPTE ST 304 receptacle on swivel, 17 VDC IDX V mount. HDX-Plus required.

SHED
SHED-BS SMPTE Hybrid Elimination Device (SHED). Universal base station end. Stand alone (UFP required on both ends).
SHED-C SMPTE Hybrid Elimination Device (SHED). Universal camera end. Stand alone (UFP required on both ends).

UFP Plates for SHED-BS
One End (choose one from below):
UFP-304F Universal fiber panel – SMPTE ST 304 FEMALE
UFP-FIS Universal fiber panel – FISCHER FEMALE HYBRID
Second End (choose one from below):
UFP-2ST Universal fiber panel – 2 ST fiber connectors
UFP-2SC Universal fiber panel – 2 SC fiber, ultra polished
UFP-2SCA Universal fiber panel – 2 SC fiber, angle polished
UFP-2LC Universal fiber panel – Dual LC connector
UFP-NOC2 Universal fiber panel – Neutrik OpticalCon Duo (for tactical / unpowered fiber)
UFP-MX2 Universal fiber panel – MX dual fiber

UFP Plates for SHED-C
One End (choose one from below):
UFP-304M Universal fiber panel – SMPTE ST 304 MALE
UFP-FISM Universal fiber panel – FISCHER MALE HYBRID
Second End (choose one from below):
UFP-2ST Universal fiber panel – 2 ST fiber connectors
UFP-2SC Universal fiber panel – 2 SC fiber, ultra polished
UFP-2SCA Universal fiber panel – 2 SC fiber, angle polished
UFP-2LC Universal fiber panel – Dual LC connector
UFP-NOC2 Universal fiber panel – Neutrik OpticalCon Duo (for tactical/unpowered fiber)
UFP-MX2 Universal fiber panel – MX dual fiber

Options for SHED
SHED-TRAY SHED tray fits 8 devices, 2 RU, rackmountable

SHED-BS

SHED-C

SHED-HDX Functional Block Diagram

HDX-Plus

Cable type

Optical

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