MultiDyne®
Video & Fiber Optic Systems

HONEY|BADGER
Campus / Venue Bi-Directional Video / Audio/ Intercom / Data Extension Platform

FEATURES

▷ All signal I/O extended over 2x Single-Mode Fibers

▷ Supports 8x Camera Feeds & 8x SDI Return Channels

▷ Available in 3G-SDI and 12G-SDI Versions.

▷ Supports up to 8x Wet/Dry Partyline Intercom Channels

▷ 2x Independent 1GbE LAN Extensions

▷ 2x Independent RS-232/422/485 Data Channels

▷ 8x Mic-Pre Inputs with Phantom Power

▷ 8x Line Level Analog Audio Outputs

▷ Tri-Level or Bi-Level Genlock Output

▷ Redundant 48VDC Power Supplies

▷ Battery Plate for Emergency Backup

▷ Gold Mount & V-Mount Battery Plate Options

APPLICATIONS

▷ Campus / Stadium Production Signal Extension

▷ Truck to Control Room Links

▷ Control Room to Studio Links
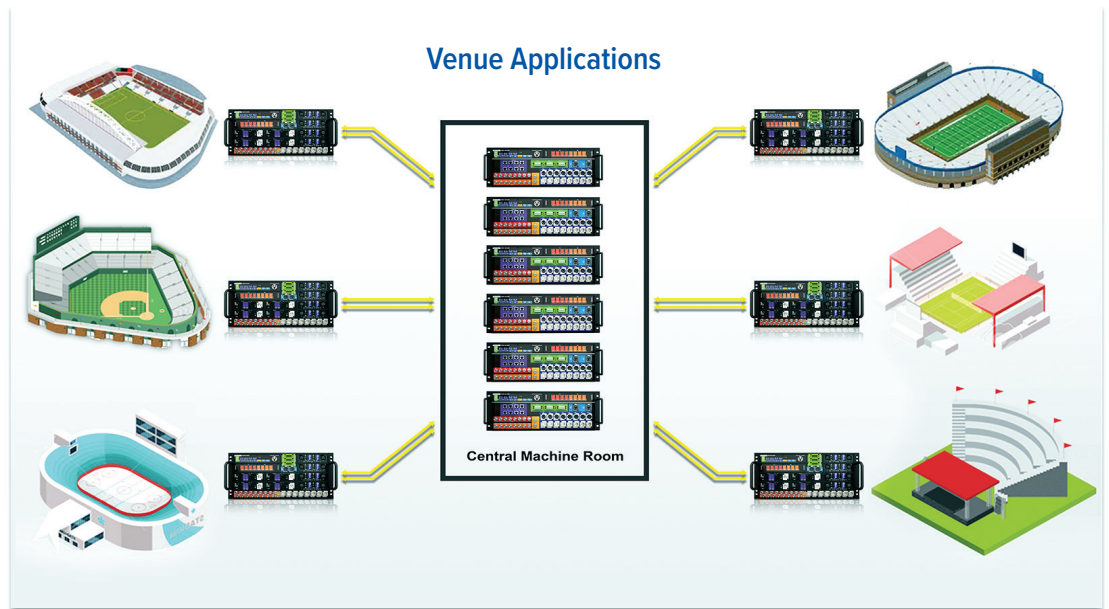
▷ Metro Intra-Facility Connections

The HoneyBadger doesn't care how big your venue is. It can handle the job with a feature set that is unavailable elsewhere in the broadcast production signal extension market.

With support for 8 cameras and return feeds plus Genlock extension, the system has your image acquisition requirements under control and in time. The Partyline Intercom channels and eight mic-pre inputs have your talent on-air loud and clear while the two isolated 1GbE LAN extensions let you get your IP connectivity extended over the same two Single-Mode fibers.

HoneyBadger Remote unit is a 5RU rack mountable chassis with dual, redundant 48VDC power supplies and a battery plate for short term emergency back up power. Fiber connector options include dual ST, Neutrik opticalCON DUO and LEMO 304M SMPTE standard connectors. The HoneyBadger Local side unit is a compact 4RU that provides the same industry standard connectivity as the remote side with full size BNCs for video, XLRs for Audio and easy to terminate Phoenix connectors for the Serial Data and GPIOs. The HoneyBadger is also available with 12G-SDI I/O to support 4K production.

Venue Applications

Central Machine Room

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SUPPORTED SIGNALS

HB-DC-DBL-12G (Local Side – 4RU) | **HB-DC-DBR-12G** (Remote Side – 5RU)

Local Side		Remote Side
Genlock	→	Genlock
8x 12G/3G/HD-SDI	→	8x 12G/3G/HD-SDI
8x 12G/3G/HD-SDI	←	8x 12G/3G/HD-SDI
8x Line Level Audio	→	8x Line Level Audio
8x Line Level Audio	←	8x Mic/Line Level Audio
2x 1GbE Ethernet	← →	2x 1GbE Ethernet
2x GPIO / Serial	← →	2x GPIO / Serial
4-Wire Intercom	← →	Wet/Dry 2-Wire
4-Wire Intercom	← →	Wet/Dry 2-Wire
4-Wire Intercom	← →	Wet/Dry 2-Wire
4-Wire Intercom	← →	Wet/Dry 2-Wire

TECHNICAL SPECIFICATIONS

- Specifications shown are inclusive of 12G-SDI and not included in the 3G-SDI version -

HB-DC-DBR-12G – Remote Side

Digital Video

8x Transmit	12G/3G/HD/SD-SDI SMPTE ST-2082, ST-2081 , SMPTE 424M, 292M, 344M, 259M
8x Receive	12G/3G/HD/SD-SDI SMPTE ST-2082, ST-2081 , SMPTE 424M, 292M, 344M, 259M
Input Coax EQ	50m at 11.88Gb/s, 90m at 5.94Gb/s, 180m at 2.97Gb/s, 240m at 1.485Gb/s, 400m at 270Mb/s
Input Level	800mV (peak to peak)
Impedance	75 Ohms
Bit Error Rate	10-12
Jitter	< 0.03UI under 1 MHz
Rise/Fall Times	< 270ps
Return Loss	>15 dB at 5 MHz - 1.485 GHz, >10 dB up to 3 GHz, >7dB 3 to 6 GHz, >4dB 6 to 12GHz
Connector	(Full Size BNC)

Analog Audio

8x In (3-pin XLR Female)	Line Level or Mic-Pre with switchable Phantom Power
8x Out (3-pin XLR Male)	Line Level
S/N	>90db
Frequency Response	< +/-0.1db (20Hz - 20kHz)
Distortion	< 0.05%
Max I/O Level	+24dBu
Impedance In (bal)	> 10k Ohms +
Impedance Out (bal)	<50 Ohms
Connector	(3-pin XLR)

Serial Data

2x	RS-232, RS-422, RS-485 (Requires Cable Modification)
232 In V	+/- 25V max, 2V min
232 Out	V +/- 5V @ 3Kohm, 1.6V Sens
422,485 In	V -7V to 12V, 0.2V diff min
Connector	Phoenix Connector

Tally/GPIO

1x	GPI & GPO Normally Open, Form 1 SPST
1x	Tally In & Tally Out Normally Open, Form 1 SPST
Connector	Phoenix Connector

Electro-Optical

Optical Wavelengths	DFB Laser 1271nm-1610nm
TX Laser Output Power	-2 - 0dBm, Class 1
Receiver Sensitivity	-24dBm(1.25G), -20dBm(3G), -14dBm(12G)
Fiber Compatibility	Single-mode
Distance Limit	3G up to 20km & 12G up to 10km
Connector	ST, SC, LC, Lemo 304M, Neutrik opticalCON Duo

* The number, quality, and cleanliness of all fiber cables and interconnection points in the fiber path will affect the maximum usable cable length.

Ethernet

2x	10/100/1000 Mbps
Connector	RJ45

Intercom

4x	2-Wire Wet or Dry
Type	2-channel party-line, unbalanced (pin 1 common; pin 2 DC with channel 1 audio; pin 3 channel 2 audio)
Compatibility	single- and dual-channel intercom systems such as from RTS® and Clear-Com®
Impedance–Normal	>20k ohms
Impedance–2-Wire (PL) Power Source Mode	200 ohms
Nominal Level	–10 dBu RTS, -14dbu Clear Com
"Mic Kill" Signal	24 kHz, ±1%
2-Wire Power Source	28 Vdc nominal, 750 mA maximum
Connector	2-Wire = 3-pin XLR Male

Power

Power Input	85-264VAC, 47-63Hz
Power Consumption	200W Max, 100W Typ.
Connector Type	IEC320-C14

Mechanical/Environmental

5RU	
Approximate weight	10 Kg (22 lb)
Height	8.7 in
Width	19 in
Depth	12.5 (14.2" Including handle)
Operating Temperature	-20c to 45c

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TECHNICAL SPECIFICATIONS

- Specifications shown are inclusive of 12G-SDI and not included in the 3G-SDI version -

HB-DC-DBL-12G – Local Side
(For Local Side refer to Remote Side specs above with the following variations:)

Analog Audio

8x In (3-pin XLR Female)	Line Level
8x Out (3-pin XLR Male)	Line Level

Intercom

4x (RJ-45)	4-Wire

Power

Power Input	85-264VAC, 47-63Hz
Power Consumption	40W Typ.
Connector Type	IEC320-C14

Mechanical/Environmental

4RU	
Approximate weight	7 Kg (15.5 lb)
Height	6.8 in
Width	19 in
Depth	10.3 (12" Including handle)
Operating Temperature	-20c to 45c

ORDERING INFORMATION

Anton Bauer Battery Plate Version Part#	Description
HB-DC-DBL-12G-AB-N2	4 RU "local" Side 12G HoneyBadger, (2) Single-mode fibers for operation with Neutrik opticalCON Duo connector and Anton Bauer Battery Plates.
HB-DC-DBR-12G-AB-N2	5 RU "Remote" Side 12G HoneyBadger, (2) Single-mode fibers for operation with Neutrik optical CON Duo connector and Anton Bauer Battery Plates.
HB-DC-DBR-12G-AB-ST2	5 RU "Remote" Side 12G HoneyBadger, (2) Single-mode fibers for operation with (2) ST connectors and Anton Bauer Battery Plates.
HB-DC-DBL-12G-AB-ST2	4 RU "Local" Side 12G HoneyBadger, (2) Single-mode fibers for operation with (2) ST connectors and Anton Bauer Battery Plates.
HB-DC-DBL-3G-AB-N2	4 RU "Local" Side 3G HoneyBadger, (2) Single-mode fibers for operation with Neutrik opticalCON Duo connector and Anton Bauer Battery Plates.
HB-DC-DBR-3G-AB-N2	5 RU "Remote" Side 3G HoneyBadger (2) Single-mode fibers for operation with Neutrik opticalCON Duo connector and Anton Bauer Battery Plates.
HB-DC-DBR-3G-AB-ST2	5 RU "Remote" Side 3G HoneyBadger, (2) Single-mode fibers for operation with (2) ST connectors and Anton Bauer Battery Plates.
HB-DC-DBL-3G-AB-ST2	4 RU "Local" Side 3G HoneyBadger, (2) Single-mode fibers for operation with (2) ST connectors and Anton Bauer Battery Plates.
V-Mount Battery Plate Version Part#	**Description**
HB-DC-DBL-12G-V-N2	4 RU "local" Side 12G HoneyBadger, (2) Single-mode fibers for operation with Neutrik opticalCON Duo connector and V-Mount Battery Plates.
HB-DC-DBR-12G-V-N2	5 RU "Remote" Side 12G HoneyBadger, (2) Single-mode fibers for operation with Neutrik optical CON Duo connector and V-Mount Battery Plates.
HB-DC-DBR-12G-V-ST2	5 RU "Remote" Side 12G HoneyBadger, (2) Single-mode fibers for operation with (2) ST connectors and V-Mount Battery Plates.
HB-DC-DBL-12G-V-ST2	4 RU "Local" Side 12G HoneyBadger, (2) Single-mode fibers for operation with (2) ST connectors and V-Mount Battery Plates.
HB-DC-DBL-3G-V-N2	4 RU "Local" Side 3G HoneyBadger, (2) Single-mode fibers for operation with Neutrik opticalCON Duo connector and V-Mount Battery Plates.
HB-DC-DBR-3G-V-N2	5 RU "Remote" Side 3G HoneyBadger (2) Single-mode fibers for operation with Neutrik opticalCON Duo connector and V-Mount Battery Plates.
HB-DC-DBR-3G-V-ST2	5 RU "Remote" Side 3G HoneyBadger, (2) Single-mode fibers for operation with (2) ST connectors and V-Mount Battery Plates.
HB-DC-DBL-3G-V-ST2	4 RU "Local" Side 3G HoneyBadger, (2) Single-mode fibers for operation with (2) ST connectors and V-Mount Battery Plates.

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