BarnfindTechnologies

One fiber
All signals

Why Barnfind

Dependable and innovative equipment for a constantly evolving industry is what we design, manufacture and provide along with unsurpassed customer support.

Excellence in equipment quality and reliability does not happen by accident; rather, it is the result of intelligent and consistent processes and procedures with a focus on constant and unrelenting improvement.

Signal conversion, redundancy, routing, distribution, aggregation and transport is our entire business and we take this very seriously. From our BarnMini series, able to service individual signals from remote sources, to our BarnOne series. We are able to handle a multitude of sources and aggregate a number of signal sources in a neat and manageable interconnect system. Our customers have found a variety of applications for our product line. From flight-packs to stadiums and from studios to remote control rooms, our products enable broadcast and pro-A/V systems designers to deliver excellence in flexibility and reliability untouched by other providers. Here are some generic applications for our product line:

The BarnOne frames can replace the failed input with your predetermined backup without you having to intervene.

Conversion with automatic changeover

We convert and can transport any signal type while offering maximum redundancy with automatic changeover. Our routing capabilities not only allow on-the-fly configuration changes without the use of patch panels but also allow you to define which signal to route in the event of signal loss; for example, if an SDI input is being routed to an output but the input is lost, you can define another SDI or perhaps HDMI signal to automatically replace it. Signal dropouts caused from power failure, from camera equipment failure or from a cut cable, no longer need to be a nightmare – the BarnOne frames can replace the failed input with your predetermined backup without you having to intervene – and, when the signal is restored, the BarnOne frame can return to it's original operation with no user intervention.

Point-to-point medium haul

Whether you are transporting signals between two buildings or from the stadium to the mobile truck or between two city blocks or two cities, one thing is for certain: You need to transport a variety of signals and, in most cases, you do not have enough fiber core to get the job done. Our BarnOne series (and all of our equipment) is signal agnostic; meaning that you can transport SDI, MADI, AES, KVM, Ethernet, DMX....anything you need – and, with our multiplexers you can combine all of these signals onto one, yes 1, fiber. Up to 18 bi-directional sources – 36 signals – can be transport over 1 core of fiber using BARNFIND equipment. E.g. up to 18 x CAM-CCU on one fiber.
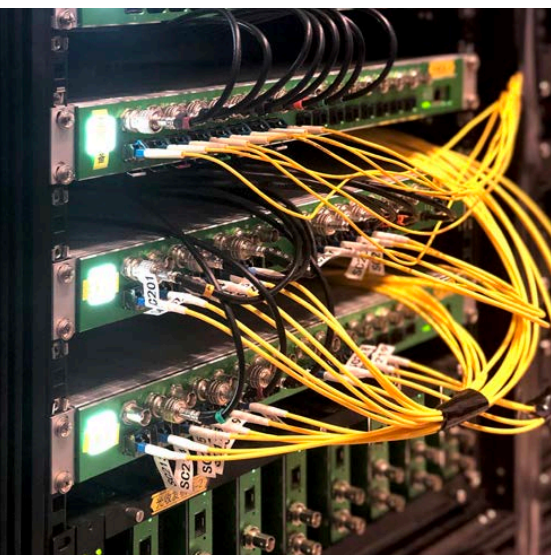
BarnOne takes your signal anywhere

World class signal redundancy

The ultimate stage-box solution

The world's most sophisticated CAM-CCU solution

The most flexible remote production unit on the market

Stage boxes

Whether you are in a OB-van situation or dealing with a studio production environment or handling the mess of cables behind a live stage production, one thing is real: You need to organize the mess of cables and connections into a manageable box that will handle and house your interconnects. Our Barnfind Stage boxes consisting of whatever modules of BarnMini's and BarnOne's allow you to do this in an effective way – from audio and video I/O to DMX and CCU setups, our solutions allow you to aggregate all of your connections in one area and then, convert and transport your signals to another location – whether you use several fiber cores or just one for all signals or two cores to add redundancy, is up to you.

We provide the tools and the innovative connectivity, and we leave you in charge of setting it up your way.
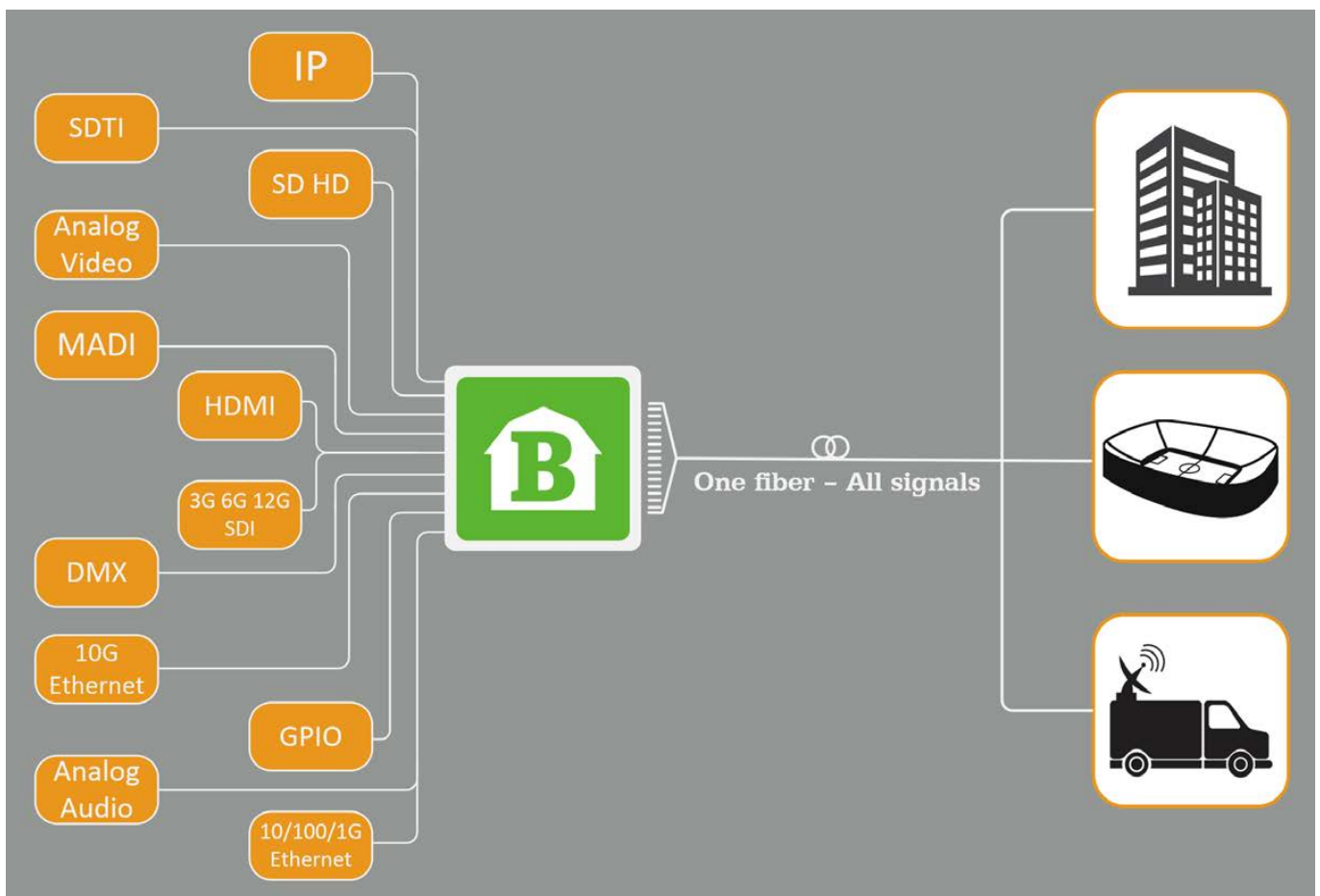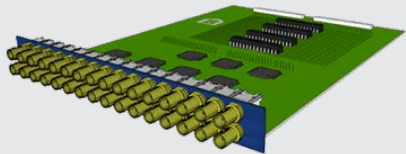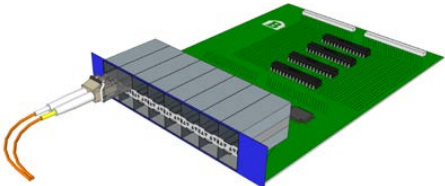
BTF1-41

Main features 12G:

- A full 32 x 32 router in every BarnOne 1RU frame

- Multirange/multiformat up to 12G

- Built-in GPIO, tally and UMD control

- Optional Mid-Board

- Future-proof design

General about the Mid-Board

By offering a mid-board section with high-speed connectors Barnfind will in the coming future develop many new functionalities into the BTF1-41 frame. This means the integration of our own development, but also from third party vendor's technologies into our product platform guarantees your investment in Barnfind to be future-proofed. We think about several new functionalities like Quad 3G-SDI to SL 12G, SL 12G to Quad 3G-SDI, compression options, pre-MUX SDI cards to increase capacity in fiber and copper, multiviewers, SDI to IP, IP to SDI, frame sync card etc.

BarnOne SERIES 2 — Frame

Order Name	Description	
BTF1-41	12G, 16 SFP ports	
BTF1-41-HDBNC32	Optional board for the middle slot. This card will give the user an electrical (mini-BNCs) interface to the crosspoint switch. 32 High density mini-BNC ports (16 inputs, 16 outputs), Multiformat, Multirange (signal transparent from low rates up to 12Gbps)	
BTF1-41-SFP16	Optional board for the middle slot. This card will give the user access to additional 16 SFP+ cages, connected to same crosspointswitch. 16 inputs, 16 outputs, SFP+ cages, Multiformat (signal transparent from low rates up to 12Gbps), Multirange.	

All base frames are 1RU-19". Price includes single PSU, control card and BarnStudio software for configuration and control.

BarnOne – The world's most compact and flexible signal transport system

Main features 3G:

- A full 32 x 32 router in every BarnOne 1RU frame.

- Any signal fed into the system can be routed to any output, distributed, converted, monitored and analyzed.

- Extremely high granularity in 1RU – 32 completely separate full bandwidth inputs, 32 completely separate full bandwidth outputs.

- Every SFP port is bi-directional.

- Every BNC port is bi-directional.

- All ports are re-clocked.

Today's product portfolio will grow rapidly with support for new signal formats.

Start working with Barnfind today.
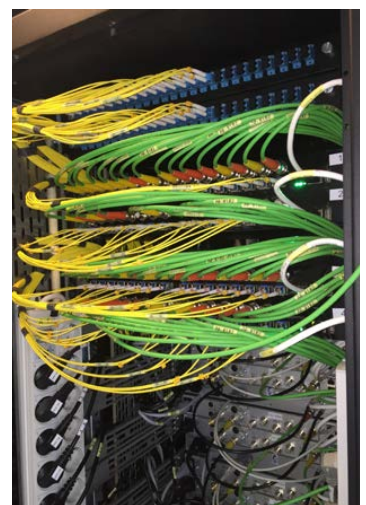
BTF1-02

## General for all BarnOne frames – SERIES 1 and SERIES 2

- BarnStudio software included in the BarnOne price. A simple and quick to learn control system with the ability to monitor and follow signal integrity through multiple nodes.

- Most 3rd party control systems: Skyline/Dataminer, ScheduALL, LAWO/VSM, BFE/KSC, DNF Control, TSL, Ross openGear/DashBoard, RASCULAR, Black Magic, HiTech Systems, Axon Cerebrum, Ember+, SAM SW-P-08 etc. are integrated. It is easy to make tailor-made custom panels and monitoring solutions.

- The BarnOne platform supports numerous signals in one frame such as common video and telco formats including KVM, SDTI (EVS), MADI, SDI to IP, Ethernet, HDMI, DVI, Serial, GPI/O, CVBS, CAM-CCU (including video, audio, tally, intercom, RCP) etc.

- We accept any MSA compliant SFP. NO "lock-in" to proprietary expensive single manufacturer made units.

- Multiple reference switching; the router can be portioned to switch different signal types on different references, both analog and digital reference.

- BarnOne Series 1 – handles Quad 3G for 4K 60p workflows.

- BarnOne Series 2 – handles single link 12G-SDI.

BarnOne 07

Rear view
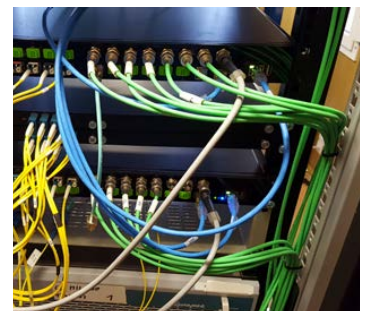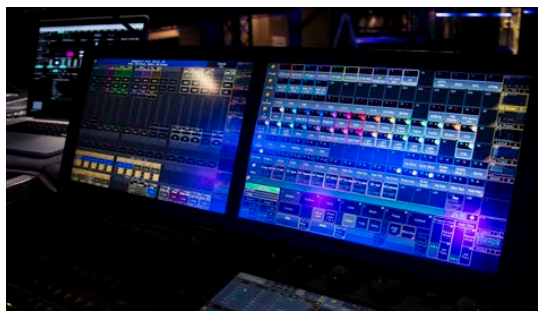
BarnOne SERIES 1 – Frames

Order Name	Description	
BTF1-01	16 SFP ports	
BTF1-02	16 SFP ports and 16 BNC	
BTF1-04	32 SFP ports	
BTF1-06	24 SFP ports, 8 BNC	
BTF1-07-08 **BTF1-07-16**	16 SFP ports, 8 BNC and a 8 or 16 channel CWDM mux/de-mux built in.	
BTF1-10AA	16 SFP ports, 8 BNC 2x D-SUB25 w/Analog Audio	

All base frames are 1RU-19". Price includes single PSU, control card and BarnStudio software for configuration and control.

BarnOne – Accessories SERIES 1 and SERIES 2

Order Name	Description
BT-PSU-100-240AC	110~240V to 12V, 120 W Redundant PSU for BarnOne / BTF-Mini-16
BT-PSU-36-72DC	48DC to 12V, 100 W Redundant PSU for BarnOne / BTF-Mini-16
BTF1-TRAY-PSU	Tray for PSU to be mounted on the rear side of BarnOne
BT-EXT-PAIR-5CM	Extention mounting brackets for BarnOne, 5cm deep
BT-FAN-BARNONE	Fan Cassette for BarnOne

The "Norwegian army knife"

The BarnMini series has won much respect in many market segments around the world. With superior quality, re-clocking, your choice to use any MSA compatible SFPs, any signal format, any distance etc. we give flexibility that no other vendor can offer. We hear from our clients that they use it as their Norwegian army knife in many demanding applications.

Very often, the small green BarnMini boxes are used as an extension of the BarnOne solutions in order to reach out to cameras, monitors or any other 3rd party products. Sometimes BarnMini boxes are used with CWDM SFP's inside so that a client can gather more than one signal and use a mux in order to get more signals over one fiber.

The BarnMini frame, BTF-Mini-16, is a housing with space for up to 16 x BarnMini modules of any kind. The BarnMini frame, BTF-Mini-16, uses the same PSU as the BarnOne family. Note that BTF-Mini-16 comes with one single PSU and redundant PSU is optional.

The BarnMini series will be growing with many new family members in the years to come.

Controllable via BarnStudio

BarnMini 05

BarnMini – Frames

Order Name	Description		Order Name	Description
BarnMini-01	BNC TX/RX, SFP port for transceiver (TX/RX), incl. PSU		BarnMini-07	Optical multiplexer for 4 channel CWDM plus upgrade
BarnMini-02	2xSFP port for transceiver (TX/RX), incl. PSU		BarnMini-08	Optical splitter, 1:2 or 1:4
BarnMini-03	HDMI-SFP, HDMI RX, SFP port for transmitter (TX), incl. PSU		BarnMini-11	BNC TX/RX, SFP port for transceiver (TX/RX), incl. PSU 12G
BarnMini-04	SFP-HDMI, HDMI TX, SFP port for receiver (RX), incl. PSU		NEW! BarnMini-22	2xSFP port for transceiver (TX/RX), 1xEthernet port for control via BarnStudio incl. PSU 12G
BarnMini-05	1xSFP port, 4xGPO, 4xGPI, 1xRS422/485, controllable via BarnStudio		BTF-Mini-16	2.5RU frame for housing of up to 16 BarnMinis, incl. PSU
BarnMini-06	Optical changeover 1:2. GPI controlled			

BarnMini – Accessories

Order Name	Description
BT-Mini-PSU	Spare PSU for BarnMini series (stand-alone)
BT-PSU-100-240AC	110 240V to 12V, 120 W. Redundant PSU for BarnOne / BTF-Mini-16
BT-PSU-36-72DC	48DC to 12V, 100 W. Redundant PSU for BarnOne / BTF-Mini-16
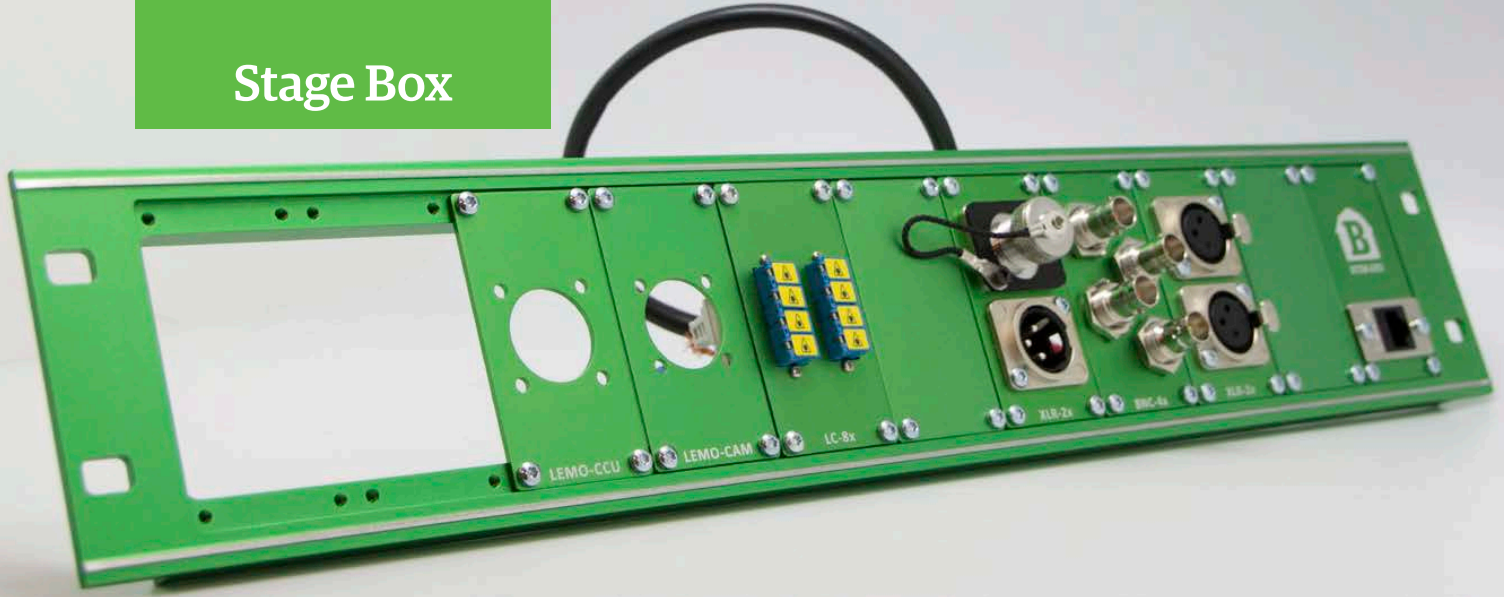
Stage Box Breakout

Module-based Breakout panel

Customize your own interconnect front panel solution to meet your specific requirements with the Barnfind Stage Box breakout.   The selection of modules will be the connection points to one or more Barnfind products. All modules are made of solid aluminium, with high performance connectors.

Note!

• The BTSB-BASE blind cover can be customized to fit any other connector outside the Barnfind selection.

• The cables between Breakout panel and frames are not included.
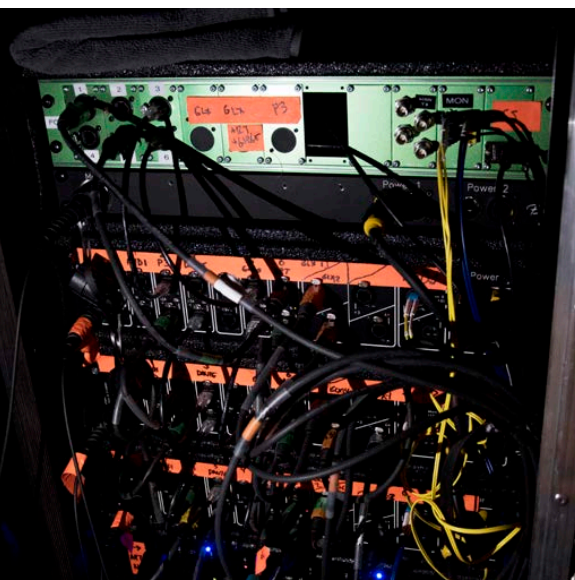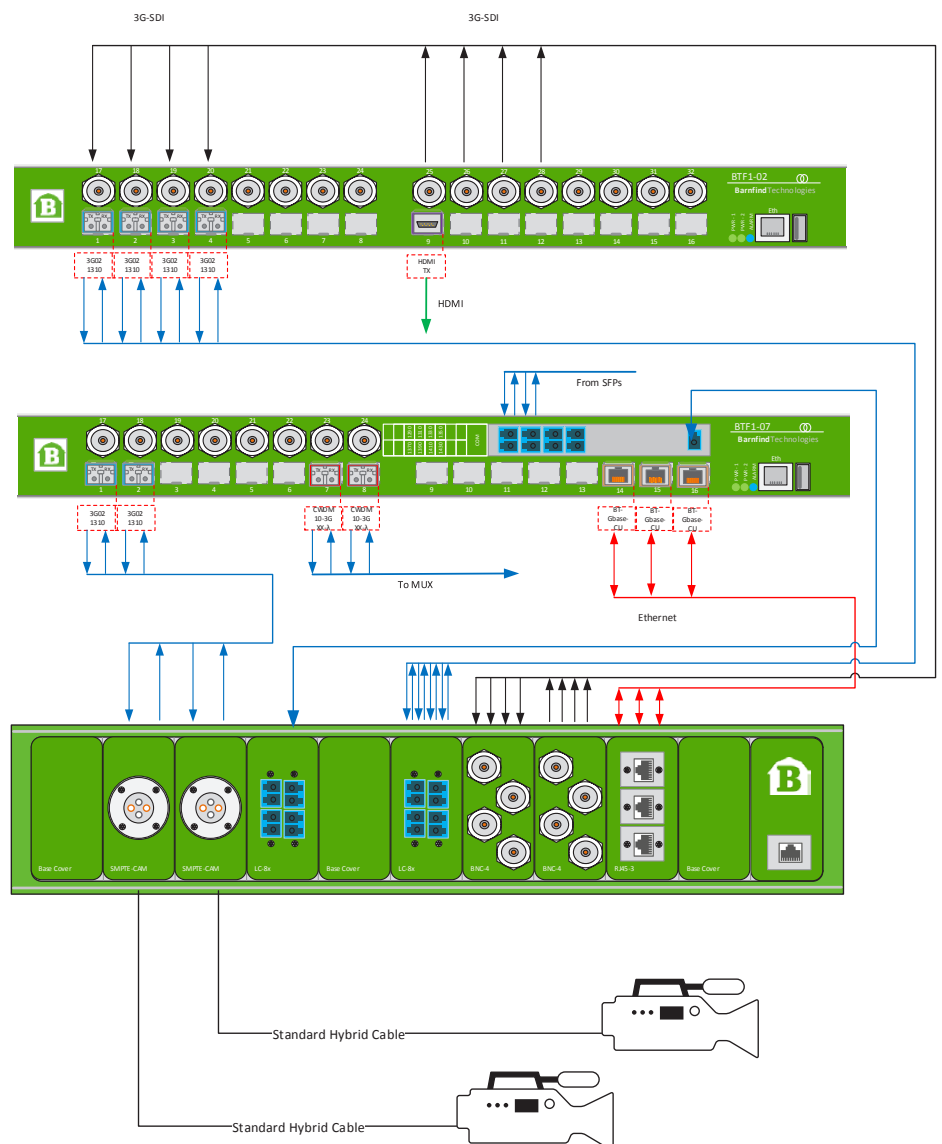
Stage Box module overview

1	2	3	4	5	6	7	8	9	10	B
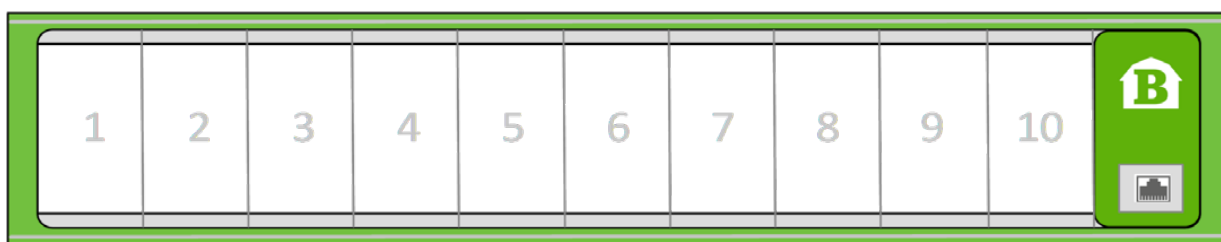
BTSB-2RU

BTSB-BASE

Blind cover to fill up unused slots in BTSB-2RU. Note, can also be used to customize for a special preferred connector.

BTSB-RJ45-3x

Panel mounted RJ45 connectors.

BTSB-BNC-4x

Panel mounted BNC connectors.
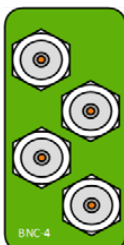
BTSB-LC-8x

Panel mounted LC connectors. Metal enclosure.
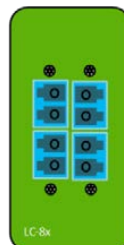
BTSB-XLR-F2x

Panel mounted XLR (female) connectors.
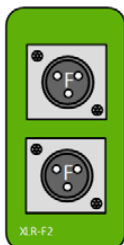
BTSB-XLR-M2x

Panel mounted XLR (male) connectors.
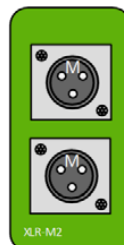
BTSB-LEMO-CAM

Panel mounted LEMO FXW.3K SMPTE connector. Used as standard on many hybrid fiber cameras. *(CAM connector not included)**

BTSB-LEMO-CCU

Panel mounted LEMO EDW.3K SMPTE connector. Used as standard on many hybrid fiber cameras. *(CCU connector not included)***

* LEMO 3K.93C SMPTE PANEL PLG, FXW with LC fibre

** LEMO 3K.93C SMPTE PANEL SKT, EDW with LC fibre

Optical Products

BT-HOUS-LGX-1RU is a 1-rack unit housing for passive optical products. It can accommodate up to 4 different LGX modules such as CWDM multiplexers, splitters etc. Each module is secured with thumbscrews for easy and quick exchange. This frame is often used when a client does not want to build CWDM muxes into the BarnOne frames, but house them in a separate housing.

Housing for Passive Optical Modules

Order Name	Description
BT-HOUS-LGX-1RU	Barnfind standard empty chassis for up to 4 LGX Boxes in 1RU

CWDM Mux/Demux   Fit into BT-HOUS-LGX-1RU Chassis

Order Name	Description
BT-WDM-LGX	2 channels in LGX box stand-alone
BT-CWDM-MUX-08-LGX	8 channels in LGX box stand-alone
BT-CWDM-MUX-16-LGX	16 channels in LGX box stand-alone
BT-CWDM-MUX-18-LGX	18 channels in LGX box stand-alone

Optical Splitters   Fit into BT-HOUS-LGX-1RU chassis

Order Name	Description
BT-SPLIT-2-LGX	Passive distribution of optical signals 1:2 out
BT-SPLIT-4-LGX	Passive distribution of optical signals 1:4 out
BT-SPLIT-8-LGX	Passive distribution of optical signals 1:8 out

Accessories

Order Name	Description
BT-ATT-LC-05	Attenuator for LC connectors, 5dBm
BT-PA-LC/LC-SM-SX-0.5M	Fiber patch cables LC-LC, Single Mode, Simplex
FAULT LOCATOR 8-10km	Visual fault locator optical tester
BT-POWER METER	Portable optical power meter
BARNCLEAN	Fiber optical connector cleaner
BARNCLEAN REFILL	Refill cassette for BarnClean

Barnfind SFP's

The Barnfind philosophy is to offer a future-proof platform that saves customers space and money. Our BarnOne and BarnMini's accept any SFP (Small Form Factor Pluggable) because you never know what tomorrow brings! Barnfind follows the standard multi-source agreement (MSA).

Any of today's MSA SFPs will fit into the system, and we are prepared for those that do not exist yet. **Barnfind has the Barn for it!**
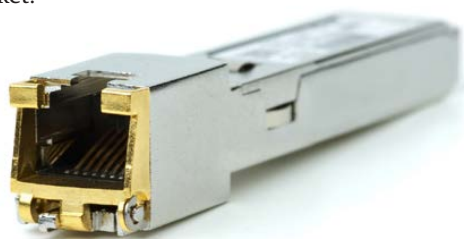
Barnfind has since 2010 put a considerable amount of resources into developing a strong portfolio of SFPs.

As an example, we have developed a HiLo (High Low) SFP which doubles the capacity of signals on a standard 18 channel CWDM mux to a maximum of 18 x bi-directional (36 channels) that maximizes the use of your fiber space. Barnfind is the only manufacturer offering 18 x CAM-CCU connections over one single fiber.

All known and unknown SFP manufacturers are welcome to house their SFP solutions in our "Barns". If you would like to build your own SFP we can house it and integrate it for the global market. Please tell us if you do not see the SFP's you are looking for in our overview of SFP's as we have only listed some of the possibilities.

Whether our own SFPs or 3rd party SFPs the BarnStudio displays information about port number, temperature, signal strengths, signal loss, manufacturer, serial number, wavelength and connector type. This information is listed in BarnStudio and/or your 3rd party management system.

Many competitors have proprietary pin layout and/or software restrictions/limitations on their SFP's which leads them to being at a higher cost. With Barnfind SFP's you will soon discover you have your spare parts in your pocket!

All you need is in your pocket!

- *Please see Product Overview under DOWNLOADS at www.barnfind.no or ask your local partner for an overview of our standard SFP's.*

- *Feel free to test out any 3rd party MSA SFP's in our Barns.*

BarnOne's maintenance cost are extremely competitive. Imagine BarnOne as the Motor Highway and all the different SFP's as cars. Working with Barnfind you can drive old and new cars on our Motor Highway for unparalleled flexibility. No other competitor offers this flexibility. Although any SFP (MSA standard) will fit into our unique Barns, we can only offer warranty on our own SFP's.

BarnStudio

BarnStudio – a management and configuration tool

BarnStudio is first of all a management and configuration tool to be used for Barnfind products. Further, it is a great tool for general monitoring of signal flow and diagnostics of SFPs, BNCs, many different optical parameters, fans, reclockers, equalizers, GPIO's and more.
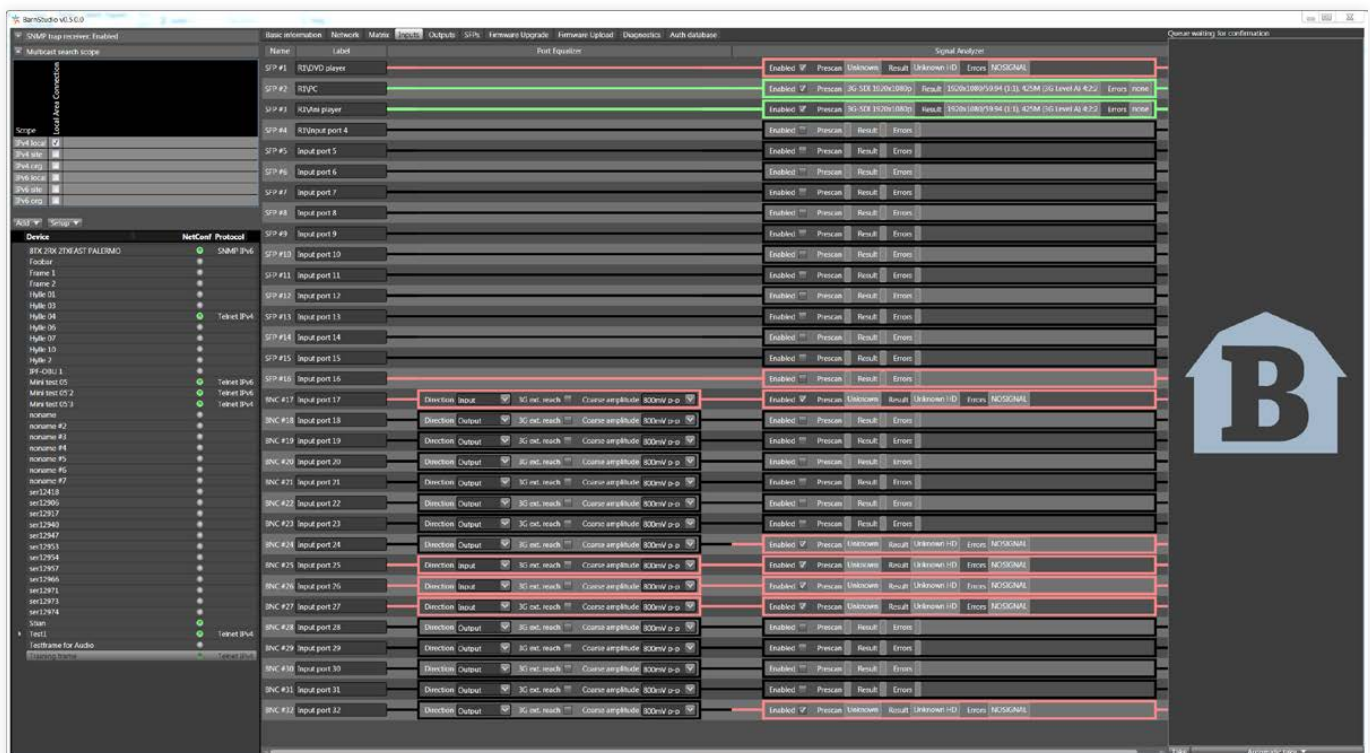
Take a close look at our no-cost BarnStudio control software that gains more and more popularity throughout the production environment. BarnStudio software is a comprehensive tool for configuration as well as for daily operations.

You can install BarnStudio on your computer today. Download it directly from our website and test it out: http://www.barnfind.no/control/

Barnfind also offers a WEB-GUI version of BarnStudio.

Barnfind offers training sessions on a regular basis for both hardware and software solutions.

Barnfind and 3rd party control

Over the years Barnfind has been integrated into many known broadcast/AV and telecom control systems around the world. Whatever your setup is – Barnfind has the control solution for you. Barnfind has strong relationships with many 3rd party control systems on the market.

For example Ross OpenGear/DashBoard, LAWO VSM, Ember+, BFE KSC, TSL Tallymann, HiTech Systems, BlackMagic Design, DNF Control, Dataminer/Skyline, RASCULAR, AXON and the industry-standard SW-P-08 routing control protocol, supported by most control panels and router manufacturers. The Barnfind platform fits perfectly into your existing application and is extremely easy to implement.

The Champion of
Fiber Transport

For all technical information - see our BarnGuide

B Barnfind Technologies

www.barnfind.no