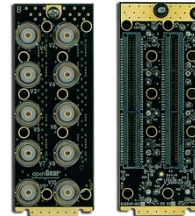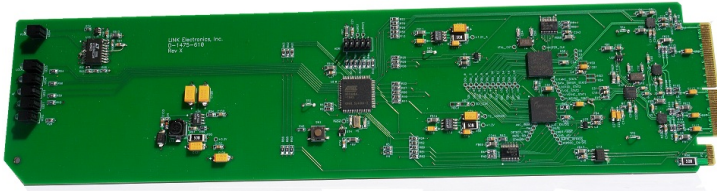# LINK ELECTRONICS, INC.
AFD INSERT, PASS, DELETE
MODEL 1864

♦ **AFD (SMPTE 2016-3) Pass/Auto/Insert/Delete**
♦ **1 X 4 Re-Clocking DA**
♦ **Field Upgradable**
♦ **OpenGear Frame Compatible**
♦ **DashBoard Controllable**
♦ **VPID (SMPTE 352M) Pass/Auto/Insert**
♦ **Audio Pass/Delete**
♦ **ANC Data Pass/Delete**
♦ **User Programmable Settings**
♦ **3G/HD/SD SDI I/O**

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The LOG-1864 is a product for inserting Active Format Description (AFD) datainto a 3G/HD/SD SDI video signal. The unit automatically detects SD, HD, and 3Gvideo standards and transmits a re-clocked signal out through four SDI outputs. Thesignal presence, format, and monitoring AFD input and output values are indicated onthe Dashboard program. The AFD data is inserted as vertical ancillary data on videolines 8-21, selected by the user. The unit is controlled by the DashBoard program forthe OpenGear frame or by front panel Dip switches.

AFD is a system of codes used to tell DTV receivers, up/down converters, andother professional video equipment, how the video signal is to be displayed, especially if the aspect ratio has changed. AFD in video production is a versatile tool that eases workflow and preserves image quality. Properly managing AFD information is in demand for state-of-the-art digital work-flows. As video productions migrate to storing all their material in HD only and converting to SD as necessary for final transmission, the LEI-564 offers a simple and reliable solution for adding in AFD for theimplementation of the up/down conversion process.

The 4 modes of AFD operation include; 'Pass thru', 'Automatic', 'Insert', and 'Delete'. 'Pass thru' will pass AFD untouched. 'Auto' is used for inserting AFD, only if there is no AFD detected. 'Insert' is for inserting an AFD value no matter if AFD is present or not. 'Delete' mode will remove any AFD from the output of the device. The unit also has three modes of operation for Video Payload Identifier (VPID) 'Pass thru', 'Automatic', and 'Insert'. 'Pass thru' will pass VPID untouched. 'Auto' inserts a VPID based on the detected format automatically. 'Insert' will allow you to insert a certain VPID value not matter what the input format is. Audio and/or ANC data can be set to pass or delete. Settings are saved in EPROM for easy configuration.

The Link openGear (LOG) series products are designed to be compatible with the openGear 10 and 20 card frames and to work along with cards of other various manufacturers. Backed by Link's 10-year warranty, the LOG-1864 will provide years of outstanding performance.

HD SD SDI AFD Insertion
MODEL 1864

SERIAL DIGITAL INTERFACE INPUT:

Format: . . . . 270 Mb/s, 1.48 Gb/s, (and 3G future)
SMPTE Standards: . . . . 259 M, 292 M, (and 424 M future)
Connectors: . . . . BNC
Impedance: . . . . 75?
DC Offset: . . . . 0.5V maxim
Signal Level: . . . . 800mv ±10%

SERIAL DIGITAL INTERFACE OUTPUT:

Format: . . . . Follows Input
Connector. . . . . 2 BNCs
Impedance: . . . . 75?
Signal Level: . . . . 1 .0Vp-p ±10%
DC Offset: . . . . ±100mV
Jitter Improvement: . . . . ~ 5%
SD @ 270 Mb/s . . . . 25ps pp, Typical
HD @ 1.48 Gb/s . . . . 15ps pp, Typical

FRONT CONTROLS & INDICATORS:

Enter: . . . . Momentary Switch with LED
Escape: . . . . Momentary Switch with LED
Menu Options: . . . . Eight Character LED Display
Menu Select: . . . . Optical Rotary Encoder

ENVIRONMENTAL:

Temperature: . . . . 0° to 50°C Ambient
Humidity: . . . . 0% to 90% non-condensing
Power: . . . . 5 Watts
Adapter Voltage 100-240VAC 50-60Hz

MECHANICAL:

Height: . . . . 1.0 Inch.
Width: . . . . 5.5 Inch.
Length: . .. . 9.25 Inch.
Weight: . . . . 1.5 Lbs.
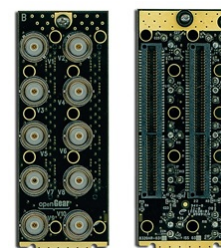
Listed below are the AFD codes for SD and HD
HD Codes

SD codes
0. Same or Bar Data
1. Reserved
2. Letter box 16:9 Top
3. Letter box 14:9 Top
4. Letter box > 16:9 Bars
5. Reserved
6. Reserved
7. Reserved
8. Full Frame 4:3
9. Full Frame 4:3 (8)
10. Letter box 16:9 No Crop
11. Letter box 14:9
12. Reserved
13. Full Frame 4:3 Alt 14:9
14. Letter box 16:9 Alt 14:9
15. Letter box 16:9 Alt 4:3

0. Same or Bar Data
1. Reserved
2. Full Frame 16:9 (8)
3. Pillar box 14:9 (11)
4. Letter box > 16:9 Bars
5. Reserved
6. Reserved
7. Reserved
8. Full Frame 16:9
9. Pillar box 4:3
10. Full Frame 16:9 Protected
11. Pillar box 14:9
12. Reserved
13. Full Frame 4:3 Alt 14:9
14. Full Frame 16:9 Alt 14:9
15. Full Frame 16:9 Alt 4:3

Rear Cell