

NK-3G144 3G/HD/SD Multi-Definition Video Router Level

Key Features

- ▶ Data rates up to 3 Gb/s
- ▶ Up to 144x144 3G/HD/SD video I/O expandable in groups of 8
- ▶ Supports SMPTE standards 424M, 344M, 259M, 292M and DVB-ASI
- ▶ Hot swappable power supplies, I/O cards and matrix cards
- ▶ Redundancy options for power supplies, control interface and matrix switching cores
- ▶ Cable equalising inputs
- ▶ Individually selectable auto / manual reclocking outputs with programmable slew rate
- ▶ 32 duplicated outputs
- ▶ Programmable vertical interval switching
- ▶ Multi-purpose Heartbeat LED for enhanced system status reporting
- ▶ Universal 10RU frame including forced air cooling with intelligent fan control
- ▶ Fully compatible with existing NK Series product range

Overview

The NK-3G144 3G/HD/SD Multi-Definition Video Router Level expands the NK Series of routers, providing a seamless, economical and future proof upgrade path from the smallest applications to the very large, with 3 Gb/s capability for emerging broadcast standards such as SMPTE 424M and 1080p HD.

Designed for low power consumption and maximum thermal efficiency, the 10RU rack frame houses up to 18 input cards, 18 output cards, 4 duplicate output cards, and dual redundant power supplies. The frame has the capability to house two matrix switching boards and two controller modules in redundant configurations. The hinged front door houses 8 cooling fans and a multipurpose Heartbeat LED reporting router status with individual card status viewable by opening the door. I/O cards, power supplies, matrix switching cores can be added or hot-swapped.

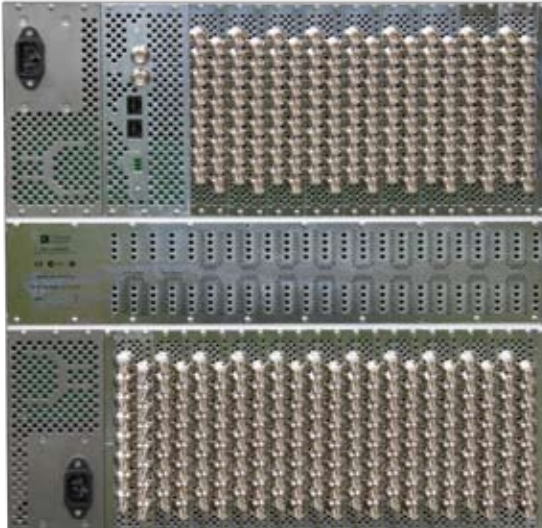
Second copies of up to 32 outputs are duplicated within the frame. The future development of down-converting, specialist monitoring (eg. multi-viewer with DVI or HDMI connectors) or special purpose output cards will give extra flexibility.

The router level is fully compatible with existing NK series devices, connecting to the distributed T-Bus control system for easy integration into existing NK Series systems. Control options include NK Series native control panels, RS232 automation, GPI and Phoenix Control Surface software.

The NK-3G144 router level may be divided into smaller partitions, which may be assigned to a unique or common switching level.



NK-3G144 front view



NK-3G144 rear view

Ordering Information

| | |
|-------------------|---|
| NK-144-FRM | NK 3G/HD/SD 144x144 Router Level Frame |
| NK-144X3G | 144x144 3G/HD/SD Matrix Board |
| NK-I3G | 3G/HD/SD Input Card (8 channel), equalised |
| NK-O3G | 3G/HD/SD Output Card (8 channel), reclocking |
| NK-C3G | Redundant communications, control and monitoring module |
| NK-P3G | +15VDC 32A 500W Power Supply 110V - 240V |
| NK-BNC3G | BNC Rear Connector Strip |

Technical Specifications

| INPUTS | |
|---------------------------|---|
| Connection | 75Ω BNC |
| Total # of Inputs | Expandable in groups of 8 to 144 max. |
| Return Loss | > 1.5dB, 5MHz to 1.5 GHz; > 10 dB, 1.5 GHz to 3.0GHz |
| Level | 800 mV p-p +/-10% |
| Cable EQ | 100 m Belden 1694 A or equivalent at 3.0Gb/s |
| Jitter | <0.2 UI additive (including xpoint & output) at HD and 0.3 UI at 3G |
| OUTPUTS | |
| Connection | 75Ω BNC |
| Total # of Outputs | Expandable in groups of 8 to 144 max. |
| Reclocking | Automatic at SMPTE 424M, 292M, 259M data rates, individually bypassable |
| Level | 800 mV p-p +/-10% |
| Return Loss | > 15 dB, 5MHz to 1.5 GHz; > 10 dB, 1.5 GHz to 3.0GHz |
| Slew Rate | Automatic at SMPTE 424M, 292M, 259M data rates, programmable via Phoenix or web interface |
| Jitter | <0.2 UI additive (including input & xpoint) |
| GENERAL | |
| Standards | SMPTE 424M, 344M, 259M, 292M and DVB-ASI |
| Partitioning | Up to 8 partitions with independent level assignment |
| Configuration | Web browser via NK-IPS Phoenix Control Surface via NK-IPS |
| Dimensions | 10RU x 320 mm, 19" rack mount |
| Power Consumption | < 500W |
| Power Supply | +15VDC 32A |
| Compliance | CE, ROHS |

Specifications subject to change without prior notice.