Closed IPTV

SD EXCEL

PREMIUM ENTERPRISE HYBRID DVR/NVR

The flagship product in the SD Series, the SD Excel offers real-time, 4CIF/D1 recording per camera in a powerful hybrid DVR/NVR package that combines all the benefits of a DVR with the feature set of a high performance embedded NVR and offers multiple channels of IP and Analogue video, HDMI main monitor support, on-board analytics, help videos and Oracle Dome configuration.

POWERFUL HYBRID DVR/NVR
The SD Excel is a true hybrid DVR/NVR. Offering up to 32 camera connections in a combination of analogue or IP (including 3rd party IP cameras). Up to 16 analogue cameras can be connected, with the balance of the 32 camera connections being made up by IP camera streams - even HD cameras.

REAL-TIME, 4CIF/D1 RECORDING PER CAMERA
Offering a blend of analogue and IP connections. Each camera can offer 4CIF/D1, real-time viewing, recording and playback simultaneously.*

PERFORMANCE BOOST WITH TURBO MODE
The latest generation SD Excel includes powerful new codecs and the Turbo Mode feature that ensures maximum per camera performance. Enabling Turbo Mode can effectively double the units performance allowing real-time recording at double the resolution simply with the press of a button.

CLOSED IPTV
The SD Excel is supplied ready to be part of the next generation of video security – Closed IPTV. Dedicated Micros' ground breaking Closed IPTV solution makes deploying an IP Video, CCTV system safe, secure and simple. Combining patent-pending innovation with zeroconf networking technology, Closed IPTV automatically allocates IP addresses to IP cameras by physical port. In this way the system is completely deterministic, creating firewalls and monitoring IP connections by individual network ports so they cannot be hacked or intercepted. This ground breaking solution provides a very simple and secure answer to IP Video, meaning that no prior knowledge of IP networking is required. Sophisticated and Dependable network security can be achieved with a single click.

Leverage the powerful embedded NVR within the SD Excel to incrementally grow your camera estate. Combine your existing installed analogue cameras with secure IP and HD cameras from a Closed IPTV system. Up to 32 camera streams can be connected enabling analogue and secure IP cameras to be shown together seamlessly. **All that is required to take the next leap in video surveillance technology is Dedicated Micros unique Layer 3 Enhanced CCTV Switch and NetVu Connected IP cameras.**

FEATURES

- Premium Enterprise Hybrid DVR/NVR
- Real-time, 4CIF/D1 recording per camera
- Up to 32 inputs in a combination of analogue or IP*
- Achieve playback recording, live viewing, streaming & archiving simultaneously
- Forms part of a Closed IPTV system when used with a Layer 3 Enhanced CCTV Switch
- HDMI Main monitor output for high definition display
- HD IP Camera Recording
- Double the products performance with Turbo Mode
- 4TB of local storage, expandable using MSUs
- AnalyticsCapable
- Recoding of 3rd party IP cameras and devices enables VMD and analytics
- On-screen telemetry control with Point&Go and Absolute Positioning
- On-board Help Videos

- Text support - capture text and embed till, ATM or analytics data with video to enable fast search of events from Retail, Banking or Access control systems
- Coaxial & Serial and IP Telemetry Control
- MultiMode Recording – Dynamically-switchable resolution, record-rate & compression (MPEG4/JPEG/H.264) per camera
- Built in DVD-R writer and USB ports for archiving evidential material
- TransCoding - High quality recording and simultaneous video transmission using MPEG4, JPEG or H.264 for playback
- Color-coded soft key menus, identical local and remote interfaces
- User customizable system map for multiple system management
- Per camera Polymorphic streams change resolution, bit rate and compression mid stream
- Embedded Operating System

NetVu CONNECTED

DEDICATED MICROS

SPECIFICATION

CAMERAS
16 analogue inputs. Auto detection on power up. Alarm on Camera Fail. 32 IP camera streams supported on all models of which 16 can be analogue with the remainder being made up of IP streams.*

RECORDING
Analogue Connections: 400pps @ 4CIF/D1
Hybrid Connections: Real-time per camera @ 4CIF/D1 irrespective of analogue or IP source*. The maximum performance parameters shown here are achievable when Turbo mode is enabled.**

RECODING
Demonstrating the power of the NetVu Connected architecture, the new SD Excel includes powerful Recoding capabilities that can decode, in real-time, any supported 3rd party IP camera stream***, and convert to a raw video image. This enables functions such as Analytics, Activity Detection, VMD and switching on alarm to be performed on any connected IP stream and introduces the ability to provide multiple streams from the same IP camera via the DVR.

LAYER 3 ENHANCED CCTV SWITCH
Unlock the powerful features of Closed IPTV within the SD Excel with the addition of our Layer 3 Enhanced CCTV Switch. The switch provides simple plug and play connectivty for Closed IPTV cameras and seamlessly integrates with the DVR for a perfect blend of secure analogue and IP camera connections. Directly connect 16 Closed IPTV cameras to the switch, cascadable up to 32 cameras with the addition of a second switch. Camera PoE is an option to reduce the need for additional cabling.
• 16 network ports (10/100 BaseT) with optional PoE
• 4 gigabit cascade / uplink ports (1x Closed IPTV Control, 1x General/Corporate Network, 1x Closed IPTV Cascade Port, 1x Zero Configuration Port

STORAGE
4TB of on-board storage, additional storage available via eSATA port.

MONITOR VIEWING
Main Monitor: Composite or HDMI Output
Spot monitor: 1x Composite Output

REMOTE VIEWER
Integrated into the configuration web pages, the remote viewing client reflects the local on-screen user interface.

MULTI*MODE* RECORDING
Set different record rates, resolutions (QCIF to 4CIF/D1), and compression algorithms (MPEG-4/JPEG/H.264) dynamically on individual cameras and across the whole unit for both normal and alarm modes.

REMOTE CAMERA CONFIGURATION
Configure Oracle Domes, Infiniti cameras and CamVu products directly through the menu interface and web pages of the DVR.

VIDEO MOTION DETECTION
Programmable VMD grid with individually definable zones per camera. User-definable sensitivity for each zone and pre and post activity recording, definable by user.

ALARMS AND RELAYS
20 Normally open/closed tamper proof alarm inputs. One global keyswitch can be assigned to operate from any of these inputs and is configurable with entry/exit route timers. 4 relay outputs are configurable to trigger in response to events.

ALARM ZONES
Alarm zones combine multiple alarm inputs to generate alarm events. This can help to minimise false triggers. e.g. you can set an alarm to be triggered by a combination of a PIR and Camera VMD to remove miss-triggers from either source.

AUDIO
Line in: 2x 1V pk-pk, RCA phono socket
Line out: 2x 1V pk-pk, RCA phono socket
Local and network audio record and playback

EVENT COPYING
Integrated DVD-writer and USB ports. Event Copying or Selective Archiving of video.

ACTIVITY DETECTION
Activity detection will switch the selected camera from normal record profile to alarm record profile.

HELP VIDEOS
The SD Excel includes on board help videos for assistance on both User and Configuration features. Accessible from both the local and remote viewer the help videos cover all major operation and configuration topics include: Basic Live and Playback control, telemetry control, alarm configuration, event reviewing and archiving.

TEXT SUPPORT
The unit can search captured transaction data for specific goods purchased, transaction numbers, credit card references, keywords etc. and jump straight to the associated video sequence.

TELEMETRY
Built-in RS485/Twisted pair and Coax protocols including but not limited to the following: Dedicated Micros 2040, 2060, Oracle, Pelco P/D/C, Honeywell / VCL Orbiter & Jupiter Microspheres™, GE CyberDome™, BBV RS485 StarCard, Bosch/Philips G3, American Dynamics, Panasonic. Also supports Point&Go and Absolute Positioning when connected to an Oracle Dome over RS485

LOCAL CONTROL
Front panel keypad, an attached telemetry keyboard, the supplied IR remote, USB mouse or USB QWERTY Keyboard.

DATA PORTS
Serial Ports: 2x RS485, 2x RS232
Ethernet: 1x Ethernet RJ-45 10/100 Ethernet connection.
USB: 3 x USB 2.0 Connector (1 front, 2 rear)
eSATA: 1x eSATA port
Keyboard: 1 x RJ12
IR Remote: 1x IR sensor at front of unit, IR Jack at rear

ANCILLARY DATA
Compression: JPEG, MPEG-4 & H.264 format files
Dimensions: 89mm (H) x 440mm (W) x 537mm (D)
Weight: 11.4 kg (25.1 lbs) with built-in PSU
Power Supply: 250W Internal Power Supply
Relative Humidity: 10% - 85% Non-condensing
Warranty: 3 Years warranty including HDDs

Model Code	Description
DM/SDEXC16MAX	Enterprise Class NVR/DVR, 16Ch Analogue/CIP, 400pps 4CIF, 4TB, HDMI, USB
DM/NSW/CP	Layer 3 Enhanced CCTV Switch, 16 ports
DM/NSW/CPP	Layer 3 Enhanced CCTV Switch, 16 ports, PoE

Above the stated 'analogue' camera connections, connected IP cameras must be NetVu Connected utilising Remote Codec. Maximum input bandwidth (network) is 32 Mbits/s

*** Turbo Mode is achievable in MPEG4. See website for full performance parameters*

**** Connection of 3rd party IP cameras will incur a nominal license charge – Licenses for NetVu Connected cameras are free*

To fully realise the benefits of the SD Excel please ensure it is operating the latest software release. Available from the Dedicated Micros website.

MKT-SDECP-D-001E

BS 8418 COMPLIANT