

# DM8107 Digital Video Recorder (DVR)

## Product PCB

### READY TO PRODUCTION

Radium's DM8107 DVR design is based on high performance TI Da-Vinci DM 8107 platform and is fully ready for production with firmware/software

### BEST IN CLASS DESIGN

Radium's DVR is based on high performance TI's Da-Vinci 8107 & NVP1104B/ NVP 1108B platform and is almost ready for production. It comes replete with full BSP and application firmware/software.

**RADIUMBOARDS.COM:**  
**Leaders in Surveillance & Multimedia**

RadiumBoards.Com boasts of best in class expertise in surveillance and multimedia domains with multiple products in production & field. Our expertise spans across the entire product development life-cycle – from product conceptualization to design to industrial design to the end application/solution.

We have excellent partnerships with EMS companies to be able to align with your aggressive production schedules.



- TIDa-Vinci DM-8107 & NVP1104B/NVP1108b Based Design
- NTSC & PAL
- Upto 4/8 Channel D1 Resolution for Recording & Upto D1 for Streaming
- H264 Compression
- SATA Drive Support
- VGA and Composite Video Out
- 4/8 BNC & 4/8 RCA Video/Audio In from Analog Camera
- PTZ Support
- Intelligent Features: De-Interlacing/ De-Noiseing, Motion Detect, Video-loss detection

| Streaming Scenarios     |                         |                         |
|-------------------------|-------------------------|-------------------------|
| Stream                  | Case 1                  | Case 2                  |
| Encode Primary Stream   | 4 x D1<br>30fps/ch      | 8 x D1<br>30fps/ch      |
|                         | H.264                   | H.264                   |
| Encode Secondary Stream | 4 x CIF<br>30fps/ch     | 8 x CIF<br>30fps/ch     |
|                         | H.264                   | H.264                   |
| Encode Audio Stream     | 4 x G.711<br>mono 16KHz | 8 x G.711<br>mono 16KHz |
| Decode Audio Stream     | 1 x G.711<br>mono 16KHz | 1 x G.711<br>mono 16KHz |

Radium's DVR is reference design based on industry leading TI's Da-Vinci DM-8107 processor & NVP1104B / NVP1108b multi-channel video decoder.

This is a feature-rich design – supports upto D1 resolution, H.264 encoding, motion detection, SATA drive support for recording with de-interlacing and de-noising features.

The reference design comes with full featured BSP and application/ configuration firmware and the release package includes a working board, BSP, application/ configuration firmware and PCB Gerber files.

## VIBRANT

### RADIUMBOARDS.COM USER COMMUNITY

Become part of a vibrant user community around TI's multimedia platforms and contribute to and benefit from collaborative development.

## FLEXIBLE OEM MODEL

RadiumBoards.Com is backed by one of India's leading CDMS Company and thus offers very flexible, innovative and customizable OEM business models

## CUSTOMIZATION

RadiumBoards.Com can provide any needed customizations to the hardware and/or firmware for an NRE and/or volume consideration.

[www.RadiumBoards.Com](http://www.RadiumBoards.Com)

## DVR: Technical Specifications

|                             |  |
|-----------------------------|--|
| <b>Processor</b>            | TI DM8107  |
| <b>TVP</b>                  | NVP1104B/NVP1108b Multi-Channel Video Decoder  |
| <b>HDD Storage Port</b>     | SATA 2.0   |
| <b>Color System</b>         | PAL/ NTSC  |
| <b>Inputs</b>               |  |
| Video                       | 4/8 BNC (From Analog Camera)   |
| Audio                       | 4/8 RCA (From Analog Camera)   |
| Interface                   | Front panel button , IR remote support   |
| <b>Outputs</b>              |  |
| Audio                       | RCA (Mono)   |
| Video                       | VGA (Upto XGA, SXGA)<br>Composite (NTSC/PAL)   |
| USB                         | 2 x USB 2.0  |
| <b>Video Codecs</b>         |  |
| Codec                       | H.264  |
| FPS                         | Upto 30 fps  |
| Bit-Rate                    | 512 – 4048 Kbps  |
| <b>Audio Codecs</b>         |  |
| Channel                     | Mono   |
| Codec                       | G711   |
| Sampling                    | 8 KHz/ 16 KHz  |
| <b>Recording Resolution</b> | 4/8 Channel up to D1   |
| <b>Playback Support</b>     |  |
| Searching Options           | Camera input, date, event type   |
| Playback Options            | Multi-channel playback of files stored in HDD  |
| Resolution                  | CIF/D1   |
| Color System                | NTSC/PAL   |
| FPS                         | Upto 30 fps  |
| Play modes                  | FF/ REW  |
| <b>Trigger Modes</b>        | Manual, Motion-Detect, Net/Video Loss Schedule-based, HDD Abnormality  |
| <b>Storage</b>              | Continuous/Event Based Storage on HDD, USB   |
| <b>Alarm Modes</b>          | Email ,SMS , NAS / FTP recording, Alarm Out  |
| <b>Back-up Option</b>       | USB: USB 2.0 Storage Drive   |
| <b>OSD</b>                  | Camera Title, Date & Time  |
| <b>PTZ</b>                  | RS485 Protocol: Pelco P, Pelco D, Presets , Guard Tour   |
| <b>Intelligent Features</b> | De-interlacing/ De-noising of data before display; Motion detection, Video-loss detection, Privacy Mask                                |
| <b>Network Service</b>      | TCP/IP, DDNS, FTP, PPPOE, SMS, SMTP, WIFI, NAS, DHCP, 3G, DNS, ICMP, IPV4, UDP   |
| <b>Interface</b>            | 10/100 RJ-45 Base-TX Ethernet  |
| <b>Logging</b>              | Full system and event logs   |
| <b>User</b>                 | Set 9 different users with different privileges  |
| <b>3G/Wi-Fi Support</b>     | CDMA - 1x , EVDO , GSM-Edge , GPRS, HSPDA , HSPA+ *<br>*Dependent on the data card, 802.11 a,b,g,n *<br>*Dependent on the Wi-Fi Dongle |



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