TR-1204C

Architectural and Engineering Specifications

Version 1.0

(Sep 18, 2018)

**PART 2 - PRODCUTS**

**Division 28 – Electric Safety and Security**

**Section 28.23.19 – Video Surveillance – Digital Video Recorder and Analog Recording Devices**

**Section 28.23.12 - Video Surveillance – System Infrastructure**

## Manufacturer

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## General

### Product Description

TR-1204C TVR (HD-TVI DVR) is a HD over Coaxial Recording System designed and manufactured by IDIS. The TVR utilizes existing coaxial cable to leverage analog infrastructure for seamless upgrade to 1080P surveillance solution. The TVR is a hybrid system which supports 1080P and backward compatible with 960H and analog. The TVR is a 4 Channel unit and supports up to 120ips (images per second) Full HD with H.264 compression. The TVR is equipped with 4 Channel BNC ports, 1 internal HDD port. The TVR is an integrated security system, capable of time division multiplexing and real time recording of multiple cameras and storing their digitized and compressed images on embedded hard disk drives for fast search and retrieval either locally at the unit, or from a remote workstation using a Graphical User Interface (GUI). The TVR is equipped with technology that allows legacy coaxial cable to work up to 1500ft with advanced camera OSD control. The TVR is fully compatible with IDIS products across different platforms such as DirectIP solution and Video Management System.

### General Specification

1. The TVR shall be a Linux embedded unit with 4 Channel BNC (Multi-standard Analog) video recording capability.
2. The TVR shall be equipped with 1 Gigabit network port, 4 BNC ports.
3. The TVR shall have 1 internal SATA port.
4. The TVR shall have 1 HDMI output and 1 VGA output.
5. The TVR shall have 2 USB 2.0 ports
6. The TVR shall support up to live 120 ips (Image per Second).
7. The TVR shall support simultaneous live view, record, play back, data transmission in real time.
8. The TVR shall support recording frame rate: 120 ips@1080P.
9. The TVR shall support H.264 compression.
10. The TVR shall provide Graphical User Interface (GUI) with multi lingual support.
11. The TVR shall support 2X – 12X digital zoom in live view mode & playback mode.
12. The TVR shall provide time lapse, event, time lapse + event, pre/post-event, panic recording schedule.
13. The TVR shall adjust Analog camera’s configuration.
14. The TVR shall support motion, video loss, video blind, system event triggering, record failure, storage related alerts in error.
15. The TVR shall support email (attach jpeg), callback to remote s/w, push notification (IDIS Mobile).
16. The TVR shall provide Record Table, Event Log and Motion Search options.
17. The TVR shall support 1 channel 1080P and 4 channels D1 synchronous playback.
18. The TVR shall be equipped with Chained-FingerprintTM, SSL, Password encryption options.
19. The TVR shall support FEN service (A name resolution service equivalent to DDNS), Bonjour, DNS-SD (DNS Service Directory).
20. The TVR shall be compatible with IDIS Center, IDIS Solution Suite, IDIS Mobile and Web Client.
21. The TVR shall be compatible with network accessory: network switch and etc.

## Technical Specification

### Video Specification

1. Analog Video Inputs: up to 4 Analog cameras
	1. Built-in 4 channel BNC Switch
2. Supported Camera type: 720P25, 720P30, 1080P25, 1080P30, and CVBS (NTSC / PAL).
3. Video Outputs: 1 HDMI, 1 VGA.
	1. The TVR shows live video through VGA, and HDMI monitor. It supports various camera display formats; Full-screen, Quad (2x2) and PIP.
4. Display Resolution:
	1. HDMI / VGA: 1920 x 1080, 1440 x 900, 1280 x 1024
5. Maximum Live Display Speed: Up to 120 ips
6. Live Digital Zoom: x2 ~ x12
7. PTZ Control and Setup
	1. The TVR shall allow control of PTZ cameras to authorized users and be used to maneuver a PTZ camera using Built-in GUI PTZ control; Pan, Tilt and Zoom, Focus Near / Far, Set / Move to Preset, Advanced PTZ capabilities. When PTZ capable camera is connected, this function shall be enabled automatically.
8. Image Authentication: Chained Finger Print
9. Additional Information
	1. The TVR shall support the following features: Sequence Monitoring, Screen Freeze, Covert cameras, Privacy Mask, Color Control (Brightness, Contrast, Saturation, Hue), event monitoring.
	2. The TVR shall display camera ID, recording status and recording mode information on the screen.

### Recording Specifications

1. Maximum Recording throughput
	1. The TVR shall support up to 120 ips @1080P HD recording.
2. Recording Resolution: Up to 2MP (Camera specific)
3. Recording Resolution: 1920x1080, 1280x720, 960x480, 960x240, 720x480, 720x240 480x240, 360x240
4. Video Compression: H.264
5. Recording Schedule
	1. The TVR shall allow camera-by-camera configuration of the following recording modes:
		1. Time Lapse Recording (Continuous), Event-Based Recording, Time Lapse with Event-based Recording, Panic Recording, Pre / Post Event Recording
	2. The TVR shall allow the user to create and edit video recording schedules for each connected camera
		1. Basic Schedule
		2. Advanced Schedule which includes different profiles and dwell timer per each occurred event
	3. The TVR shall include the ability for Pre-Event recording, which records video for a specified time before an event or alarm has occurred. The allowed time Pre-Event recording is from 5 seconds to 30 minutes.
6. Additional Information
	1. The TVR shall support individual camera Recording profile Setup.
	2. The factory default resolution is set at the maximum of the camera’s resolution. This is adjustable parameter according to custom configuration.

### Playback Specifications

1. Performance
	1. The TVR shall support 1 channel 1080P and 4 channels D1 synchronous playback.
2. Display Format
	1. The TVR shall offer multi-screen playback (single-screen or quad layouts), series display (displaying images from one camera image by image), and full-screen display.
3. Search Mode: Time-lapse, Event log, Motion
	1. The TVR shall provide various search filters for fast retrieval; Calendar Search, Go To Search, Record table search, Search by Event, Motion and Bookmark Search.
4. Playback Digital Zoom: x2 ~ x12

### Storage Specifications

1. HDD: Internal SATA x1 (Up to 2TB capacity / 2.5”)
2. Total Capacity: 2TB = 2TB x 1
3. Data Export
	1. Device: USB Storage Device (USB HDD, USB Memory Stick)
	2. Data Export with Audio: Supported
	3. Multichannel Data Export: Supported
	4. The TVR shall have the ability to save the video clip as an “.exe” (IDIS Player) file. The IDIS Player (Clip Player) is a self-executable file (Single / Multi Channel with compressed video and audio), which requires no additional program to play back on any compatible Windows PCs. The exported file can be saved using USB thumb drives.
4. Additional Information
	1. The TVR shall be equipped with Self-Monitoring Analysis and Reporting Technology (S.M.A.R.T.), incorporating a suite of advanced diagnostics that monitor the internal operation of hard drives and provide early warning for many types of potential problems.

### Network Specifications

1. Network Connection: Gigabit Ethernet(Client) x 1 port
	1. Network connection is used for connecting the remote client software in LAN or WAN environment
	2. Remote Data Throughput: 3Mbps to 12Mbp (depending on quality and resolution configuration)
2. Remote Data Export: IDIS Player, AVI, JPG
	1. The still or moving images can be captured using remote client software as a JPG, AVI, BMP or EXE file format.(dynamic remote application)
3. Remote Client Viewer application: IDIS Center, IDIS Solution Suite, IDIS Mobile, IDIS Web
	1. IDIS Center: Windows and Mac OS (Note: IDIS Center for Mac OS is limited in functionality)
		1. IDIS Center (for Windows only) supports simultaneous firmware upgrade on multiple TVRs
	2. IDIS Solution Suite: Windows OS
	3. IDIS Mobile: iOS, Android and Windows Mobile platform
	4. IDIS Web works with TVR’s embedded web server using a Web Browser with ActiveX plug-in.
4. Maximum Client Connections
	1. Remote connection : 4 (Search : 1)

### Alarm and Event Specifications

1. Trigger Events: Motion detection, Trip-zone, Video loss, Video Blind and System events
2. Event Notification: Email (attach jpeg), Callback to Remote S/W, Push notification (IDIS Mobile)
	1. The TVR shall support e-mail notification when events occur: motion, video loss, camera obscuration and / or stop recording
	2. Mobile device push notification: users can receive push notification on their phone when an event is triggered.
	3. The TVR shall include a system log report support that records and displays information relating to reboots and other system information. The user shall receive event notification.

### External Interface Specifications

1. User Control Interface: Mouse
2. USB Interface: USB 2.0 x 2

## Mechanical Specifications

1. Operating System: Embedded Linux
2. Unit Dimensions (W x H x D): 170 mm x 44.5 mm x 114.9 mm
3. Unit Weight: 0.44 kg (0.97 lbs) (with 1 HDD)

## Environmental Specifications

1. Working Temperature: 0°C to 40°C (32℉ ~ 104℉)
2. Operating Humidity: 0% ~ 90%

## Electrical Specifications

1. Power Input: 100~240V AC, 50/60Hz, 1.5A
2. Power Output: 12V DC, 3A
3. Power Consumption: 10.2W
4. Regulatory Approvals:
	1. Electrical: FCC, CE, KC

# Version History

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| --- | --- | --- | --- |
| **Version** | **Writer** | **Revision Date** | **Remarks** |
| 1.0 | Ray Sun | Sep 18, 2018 | Initial release |