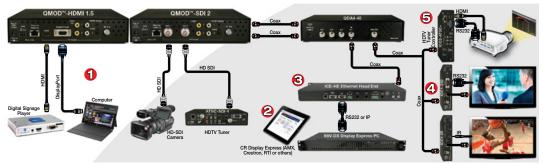




# **Display Express Systems**



Contemporary Research display control installations include:

#### **Sports Facilities**

AT&T Centers - Spurs and Heat Hershey Center Jacksonville Arena Louisiana Superdome Seattle Mariners Wachovia Center - 76ers

## **Corporations**

Home Depot Hyundai USA Lockheed Martin Mercedes Benz

# **Worship Facilities**

Willow Creek Church Criswell Center Prestonwood Baptist Church

### **Entertainment**

Maryland Live Casino Delta Downs Casino Margaritaville, Las Vegas

#### Colleges

John Paul Jones Arena - UVA Wake Forest University At Contemporary Research, we look at RF systems through the lens of integration. For that reason, we created a facility-wide TV and media control system that operates over the same RF cable as the channels. In use for over 15 years, the system has proved to be extremely reliable and simplified site's transition from analog to digital channels.

The success of Display Express control rests in its simplicity. Start with a selection of in-house channels, add our DX software or a custom control processor, distribute control over RF, and then integrate controllers at each TV, monitor or projector.

# **1** Channel Origination

- QMOD HD Modulator/IPTV Encoders process media from SDI, HDMI, Component and RGBHV sources in to HD in-house channels
- · RF outputs from the modulators are combined and amplified for site distribution

### Display Express

- Operates from Windows Win 7/8 Pro, Windows Server
- Available integrated in Display Express PC or software for site's PC
- Serves display control Web pages to PCs, tablets and smartphones
  - Setup pages create a database of controllers, groups, channels, and users
  - · Preset pages create a database of commands linked to TVs
  - Schedule pages launch Presets by date, time, and cycle
  - Alert pages create buttons for video paging and alerts
- Web Control Panels can be created assigned to users
  - **Preset** panels trigger Presets from interactive buttons
  - TV Control panels select TVs and change channels, volume, and power
- Sends commands to the ICE-HE Head End

# (CE-HE Control Channel

- ICE-HE receives commands from Display Express PC
- Creates a micro control channel between 4 and 5 that combines with other RF channels

## **4** TV Controllers

- · Receive control channel, sends the rest of the channels to the TV
- Send RS-232 or IR commands to the TV for power, channel, inputs and volume

# Tuner Controllers

- Tunes channels for use with video projectors and monitors
- Receive the control channel and manages projector via RS-232





# **Display Express Systems**



**Display Express Software** 





Display Express Control Software
Software
Serves Web pages for system setup, control, and scheduling
Installed in site's Win 7/8 Pro PC, Windows Server, or Display Express PC

**Display** Rack-mount Windows 7 Pro PC with pre-insrtalled Display Express software **Express PC** 

Physical 19"W x 1.7" H (1RU) x 14" D, 10 lbs

Software Windows 7 Pro, Display Express control/scheduling software

Drives 250 GB HDD IDE

Processing Intel Dual-Core Celeron 1620, 1G DDR3 SRAM

4USB 2.0 Ports, VGA and DVI outputs RJ-45 10/100 Mbps Ethernet port

Includes RS-232 cable for ICE-HE Head End, USB/RS-232 adapter

#### Control Channel

#### **ICE-HE Ethernet Head End**

Control RJ-45 Ethernet, RS-232 data inputs

Use with Server-based applications or PC located remotely from Head End unit

General Communicates with SignStream control software

Sends control commands through RF to iC-Net controllers Sends control data via RF, 74.7 MHz, narrow-band signal between channels 4 and 5 Receives status data at 5.6MHz, below sub-channels from 2-way iC-Net controllers

**Physical** 19"W x 1.75" H (1RU) x 9"D, 3 lbs

**Includes** Rack mounting hardware

12 VDC Power Supply, 500 mA



ICC1-232 TV Controller



ICC1-IRX TV Controller



ICC2-ATSC 4

# TV Controllers

Contro	ICC1-IRX	ICC1-232	ICC2-ATSC 4
Туре	IRTV Control	RS-232 TV Control	RS-232 Controller ATSC/QAM Tuner
Control	Discrete IR control Power, Channels, Inputs	RS-232 commands Power, Channels, Inputs, Control Lockout	RS-232 Power, Channels, Inputs, Control Lockout
Physical	5.5"W x 1.1" H x 3.4"D 8 oz	5.5"W x 1.1"H x 3.4"D 8 oz	8.5"W x 2.0"H x 8.0"D 2 lbs
Tuning	ByTV	By Display	ATSC, NTSC, QAM

Sense CSM1: Xantech power

current Sensor Tip+: CC-HSD for tube TVs

Outputs RF: In and Out RF: In and Out

RF: In and Out

Tuner RF: In HDMI, RGB/YPbPr, NTSC Video HDMI, Coax, Optical, Stereo Audio All outputs Simultaneous

Includes PS12-500 power

supply IC-IRE IR Emitter supply

PS12-500 power

PS12-15 1.5A power supply

Optional Xantech CSM1 CC-HSD Sensor CC-COM cable

CC-COM cable HD2-RC IR Remote (1 per system needed for setup)

CR products feature a full two-year warranty,

six months for Display Express PC

Specifications Subject To Change Without Notice

Rev €Ï ËFÎ

©Toner Cable Equipment, Inc.