3025EMC
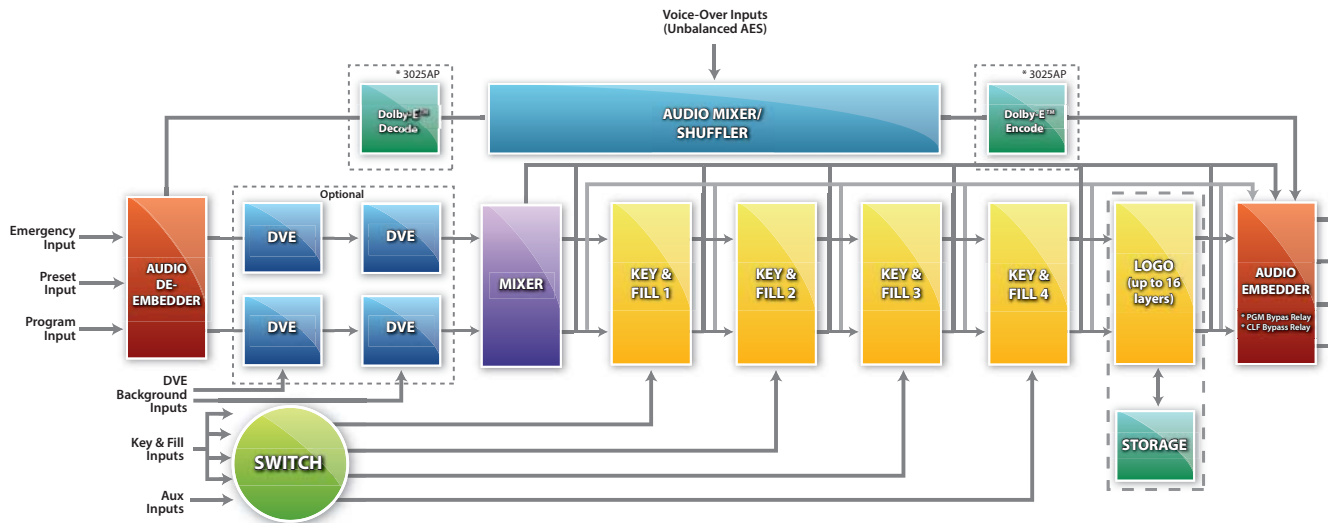## Master Control Switching & Channel Branding

▶ **EMC Block Diagram**

▶ Branding & DVE

The 3025EMC comes with four external keyers that allow for external graphic engines to be fed into the module. The 3025EMC has four internal key layers for static or animated "bugs" over the 3Gb/s, HD or SD video signal. The internal media generator also offers the options for the use of audio chimes/snipes, dynamic text for lower thirds, and dynamic text crawls. The size of each logo is variable and ranges from 1/25th to full-screen. Various media formats (such as Tiffs, TGA, Bitmaps, and WAV files) can be imported into the Evertz® *overture™* media software and transferred to the 3025EMC via Ethernet. The internal key layers can optionally be expanded to 16 (+EMG option).

With the removable compact flash option you can have access to up to 8GB (+PC8G) & (CF8G) of on-line media storage space. The Network Attached Storage option (+NAS) utilizes the Gigabit Ethernet of the 3025EMC to connect a media server device.

The 3025EMC offers an optional DVE feature. The 2-channel 2-D DVE option (+DVE-2D) or a 4-channel 2-D DVE option (+DVE-2D-2) provides live and dynamic visual effects, such as picture sizing, picture-in-picture with full preview capabilities and positioning, and is fully integrated within the 3025EMC. The DVE is fully assignable within the video-processing path of the 3025EMC. The DVE may be controlled manually or from the automation system and is independent of the key and logo (bug) layers.

▶ Audio & Voice-Overs

The 3025EMC has powerful and flexible audio capabilities. With a standard 16 channels of embedded audio, it is easy to integrate into any station. Audio level adjustments may be made from the panel at any time and stored on a source-by-source basis. Internal audio shufflers allow routing from any input to any output. Also, phase correction and mono-mixing is provided.

The 3025AP (Advanced Audio Processing) with built-in sample rate converters allow any mix of 44.1kHz and 48kHz sources to be used and silently switched on-air. Optional Dolby-E/AC-3™ Decoders (+DD2) and Dolby-E™ Encoders (+DE2) allow the 3025AP to handle Dolby 5.1 programming.

Both the 3025EMC and 3025AP boards can perform two independent stereo voice-overs, each mappable to any or all output channels. Full "pre-hear" allows level and voice-over ratio to be set prior to going on-air. Voice-overs can be taken to air combined with another transition or independently.

Evertz® award-winning IntelliGain™ (+IG) can be added to the 3025AP to provide Program Loudness control.

▶EMC Control

Manual Control: The 3025EMC system was designed for ease of use in live and automated environments. The range of control panels has been optimized for size and ease of use in single and multi-channel playout applications. All the control panels use 10 character LCD buttons, providing a dynamic control environment. Every button is user-configurable, enabling panel layouts that are operator friendly. The panel layout provides a menu system, exposing the full capability of the 3025EMC to the operator. The control panels range from a 1RU version to the full size desktop control panel.

Automated Control: Each 3025EMC channel can connect to the leading automation systems through a dedicated serial port located on every channel. This gives low latency and maximum protection against on-air problems. Crosspoint control of upstream routers is handled directly by the 3025EMC so only a single port on the automation system is required for each active channel. The control protocols used by 3025EMC are supported by the major automation vendors.

Upstream Router Control: Each 3025EMC channel can control any size of router matrix ranging from 12 inputs to 1024 inputs. For "turn-key" environments, the 3025EMC integrates seamlessly with the Evertz® router product lines (from EQT to EQX). For existing routing infrastructures, the 3025EMC has support for the leading router vendors.

Evertz® EMC-DCP , QMC-CP-1000E, QMC-CP-E Control Panels and VUE Interface

▶Specifications

Video Connections:

Inputs:	Program, Preset, Keyer-1 Fill, Keyer-1 Key, Emergency, Keyer-2 Fill, Keyer-2 Key, Keyer-3 Fill, Keyer-3 Key, DVE Background 1, 2, AUX 1, 2, and 3 Program Bypass, Clean Bypass
Standards:	SMPTE ST 259-1, SMPTE ST 292-1, SMPTE ST 424
Signal Level:	800mV p-p nominal
Impedance:	75Ω terminating
Return Loss:	15dB typical (5MHz – 1485MHz) Cable equalization: Belden 1855A, 300m @ 270MHz 100m @ 1.5Gb/s, 100m @3G
Connectors:	DIN 1.0/2.3 or BNC per IEC 61169-8 Annex A
Timing window:	±½ line w.r.t. Reference input

Outputs:

4 Standard (dual):	Program, Preview, Clean, Aux
Standards:	Same as input
Signal Level:	800mV p-p ±10%
Impedance:	75Ω terminating
Return Loss:	15dB typical (5MHz – 1485MHz)
DC Offset:	0 ±0.5V
Connectors:	DIN 1.0/2.3 or BNC per IEC 61169-8 Annex A

Switching Reference:

Reference input:	Analog 525/625 or Tri-level
Signal level:	1V p-p ±3dB
Connector:	DIN 1.0/2.3 or BNC per IEC 61169-8 Annex A

Control:

Q-Link:	DIN 1.0/2.3 or BNC per IEC 61169-8 Annex A
Serial:	6 serial (configurable RS-232/RS-422) DB9 female (on two breakout panels)
Ethernet:	Dual 10/100/1000BT, 8-pin RJ45

General Purpose Inputs/Outputs:

Inputs:	16 (standard)
Outputs:	16 (standard)
Type:	Opto-isolated, active low
Connector:	Terminal block (on breakout panel)

LTC Reader:

Standard:	SMPTE ST 12-1
Frame Rate:	25 and 30 Fps nominal
Connectors:	3-pin female XLR type connector (on breakout panel)
Level:	0.2V to 4V p-p, balanced or unbalanced

Physical (EMX6-FR):

Height:	10.5" (266mm)
Width:	19" (483mm)
Depth:	14.5" (368mm)
Module:	15 single slot modules

Physical (EMX3-FR):

Height:	5.25" (133mm)
Width:	19" (483mm)
Depth:	15.75" (400mm)
Module:	5 single slot modules
Discrete Audio Support:	Contact Factory

Electrical (EMX6-FR):

AC Mains Input:	Auto ranging, 100-200V AC, 50/60Hz
Max. Oper. Current:	9.5A (@115V AC nominal) 4.0A (@220V AC nominal)
Single Channel:	Approx. 90W
Connector:	IEC 60320 - 1 per power supply

Electrical (EMX3-FR):

AC Mains Input:	Auto ranging, 100-200V AC, 50/60Hz
Max. Oper. Current:	4.6A (@100V AC nominal) 1.85A (@240V AC nominal)
Single Channel:	Approx. 90W
Connector:	IEC 60320 - 1 per power supply
EMC:	Complies with FCC Part 15, Class A Complies with EU EMC directive 89/336/EEC

Physical (number of slots):

3025EMC-3G:	3
3025EMC-HD:	3
3025AP:	2

▶Ordering Information

3025EMC-HDSD	HD/SD Master Control with Channel Branding Module
3025EMC-3G	3G/HD/SD Master Control with Channel Branding Module

Main Processing Module Options

+EMG	Media Graphics expansion
+DVE-2D	Two channel 2D DVE
+DVE-2D-2	Four channel 2D DVE
+TXT	Texting option for crawls and CGs
+TP	Air Temperature probe
+PC8G	Upgrade of playout cache to 8GB
+CF8G	Upgrade of compact flash to 8GB
+E	Support for EAS crawl insertion (North America only)
+NAS	Support for network attached storage

Main Processing Module I/O Enclosures

3025EMC-IO-DIN	DIN I/O Rear Module for 3025EMC
3025EMC-IO-XLINK	XLINK I/O Rear Module for 3025EMC
3025EMC-IO-BNC	BNC I/O Rear Module for 3025EMC

Audio Modules

3025EMC-48x32-AESU	
	External AES input and output board for the 3025EMC
3025AP	Advanced Audio Processing module for 3025EMC

+UMX	Single Stereo to 5.1 UpMix
+DMX	5.1 to 2-Channel Stereo Downmix
+DD2	Dual Dolby E®/AC-3 decoder
+DE2	Dual Dolby E® encoders
+IG	IntelliGain

Frames

EMX6-FR	6RU frame for 3025EMC modules. Up to five 3025EMC modules
+PS	Redundant power supply
EMX3-FR	3RU frame for 3025EMC modules
+78PQT	Redundant power supply

Control Panels

EMC-DCP	Desktop control panel for 3025EMC and QMC-2.
QMC-CP-1000E	QMC Auxiliary Control Panel - Fully programmable panel with 16 integral 10 character LCD buttons and Ethernet. 1RU rack mount
QMC-CP-E	QMC Control Panel - Standard panel with fully programmable 10-character LCD buttons and Ethernet. 2RU rack mount
QMC-CP-2048E	QMC Buddy Panel - Three rows of 16 integral 10 character LCD buttons which can used in conjunction with other QMC control panels for extended control. 2RU rack mount with Ethernet
QMC-DCP-SW	Software version of QMC-DCP

Accessories

9700BHP-AUX	Second breakout bulkhead panel for additional GPI/O serial communication ports