

## Description:

The SMX6811N(S) / SMX6812N(S) are AES audio embedding module with AES output. The modules all support 2 pairs (4 channels) of AES audio embedding. The user can choose input audio or other audio synthesized by system and embed them into any audio group.

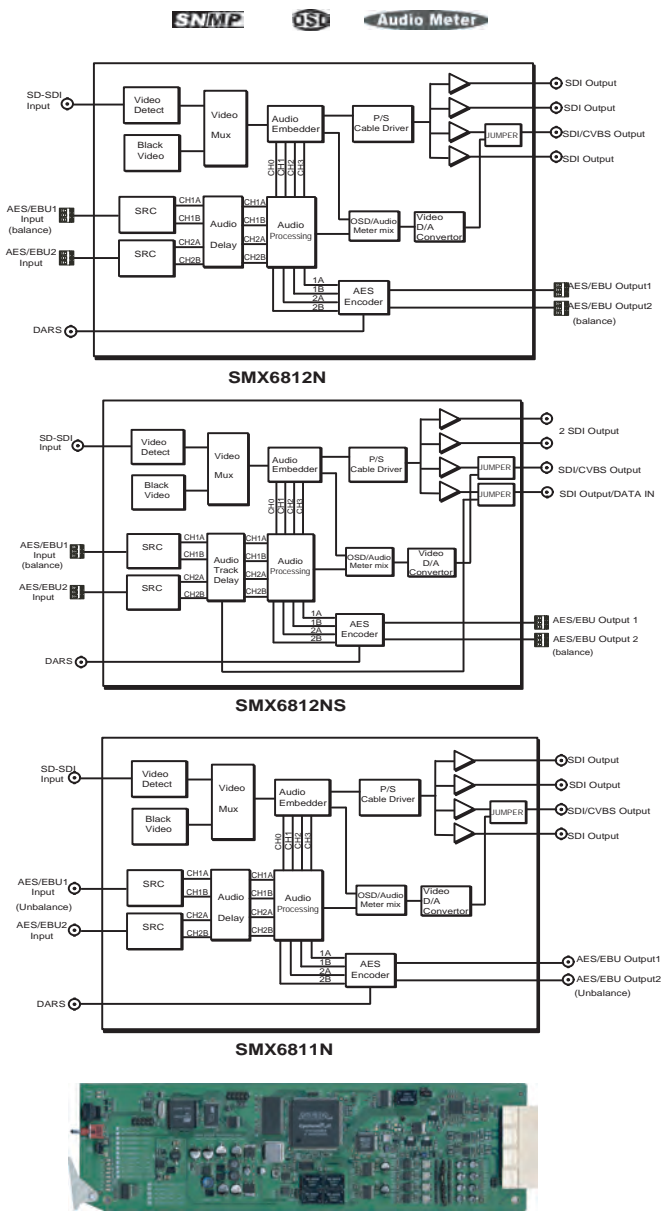
Each module has its distinct feature as follows:

The SMX6811N has 2 pairs of unbalanced AES inputs as well as 2 pairs of unbalanced outputs;

The SMX6811NS has 2 pairs of unbalanced AES inputs as well as 2 pairs of unbalanced outputs, and audio tracking;

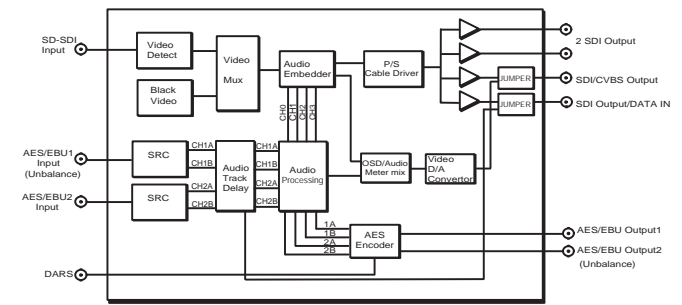
The SMX6812N has 2 pairs of balanced AES inputs as well as 2 pairs of balanced AES outputs;

The SMX6812NS has 2 pairs of balanced AES inputs as well as 2 pairs of balanced AES outputs and audio tracking.

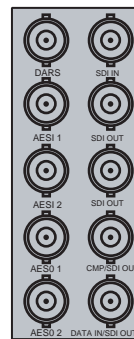


## Features:

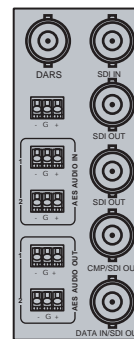
- ▶ Supporting audio embedding in 525/625 video standard
- ▶ Supporting 2 pairs (4-channel) AES audio embedding
- ▶ Supporting 20-bit and 24-bit audio embedding
- ▶ Both embedded audio group and embedded code selectable
- ▶ Supporting AES output
- ▶ Audio tracking (only applicable to SMX6811NS & SMX6812NS)
- ▶ Embedded SDI output with reclocking
- ▶ One analog composite video output monitoring
- ▶ SD-SDI video input auto detection and input status feedback
- ▶ Supporting 4-channel audio metering display
- ▶ Embedding tone signal at fixed frequency rate
- ▶ Supporting maximum 1.3 second audio delay
- ▶ Supporting audio gain adjustment, invert and mute
- ▶ Input EDH monitoring
- ▶ Re-insert EDH
- ▶ Freeze frame, black field and video loss detection
- ▶ Audio loss and audio overload detection



SMX6811NS



SMX6811N  
SMX6811NS



SMX6812N  
SMX6812NS

**Specifications:** (Specifications are subject to change without notice)**SDI Video Input**

Video Standard	SMPTTE259 M-C, 270 Mbps, 525/625 component
Connector	BNC ( IEC 169-8)
Impedance	75 ohm
Return Loss	> 18 dB to 270 MHz

**SDI Video Output**

Video Standard	SMPTTE259M-C, 270Mbps, 525/625 component
Connector	BNC ( ICE 169-8)
Impedance	75 ohm
Return Loss	>18dB to 270MHz
Signal Level	800mV +/-10%
DC Offset	0V +/-0.5%
Rise and Fall Time	400-1500ps (20%-80% of amplitude)
Overshoot	< 10% of amplitude
Jitter	<0.2UI (740ps) peak to peak

**Unbalanced AES Input**

Input	2 pairs (SMX6811N and SMX6811NS)
Connector	3-pin (male)
Impedance	110ohm +/- 20% (0.1 to 6 MHz)
Sensitivity	<200mV
Maximum Input Signal	10 V (peak to peak)
CMR	0 to 7 V () to 20 kHz)

**Analog Composite Video Output**

Standards	NTSC, PAL or PAL-M
Level	1Vp-p +/-3dB
Impedance	75 ohm
Return Loss	>40 dB to 5 MHz
DC Offset	0V ±0.05 V
Frequency Response	±0.2 dB to 5 MHz
Differential Gain	<1%
Differential Phase	<1.5°
Group Delay	+/-10ns to 5 MHz

**Balanced AES Input**

Input	2 pairs (SMX6812N and SMX6812NS)
Connector	BNC(IEC 169-8)
Impedance	75ohm
Return Loss	>25 dB, 0.1 to 6.0 MHz
Sensitivity	<100 mV

**Unbalanced AES Output**

Output	2 pairs (applicable to SMX6811N and SMX6811NS)
Sensitivity	< 200 mV
Impedance	110 ohm +/- 20% (0.1 to 6 MHz)
Signal Level	2 to 7 Vpp
Rise and Fall Time	< 20 ns
Jitter	+/-20 ns

**Balanced AES Output**

Output	2 pairs (applicable to SMX6812N and SMX6812NS)
Connector	BNC(IEC 169-8)
Impedance	75 ohm
Return Loss	>25 dB, 0.1 to 6.0 MHz
Signal Level	1.0 V +/- 10%
Rise and Fall Time	30-44 ns
Jitter	< +/-20 ns

**Power Consumption**

Power	3.25W
Positive Rail	500 mA
Negative Rail	10 mA

**Ordering Information:**

SMX6811N	4-channel unbalanced AES/EBU embedding module with 4 channels of unbalanced outputs	SMX6812N	4-channel balanced AES/EBU embedding module with 4 channels of balanced AES/EBU outputs
SMX6811NS	4-channel unbalanced AES/EBU embedding module with 4 channels of unbalanced outputs and audio tracking	SMX6812NS	4-channel balanced AES/EBU embedding module with 4 channels of balanced AES/EBU outputs and audio tracking