

# SystemBase

## IP Codecs

### KEY FEATURES

- **DSP Architecture**  
24Bit Digital Audio,  
32Bit Signal Processing,  
Selectable Headroom,  
(+12dBm or +18dBm).
- **Ethernet Support**  
Web Server port,  
IP Audio Port,  
Remote Management,  
Backup User Settings,  
Restore User Settings,  
Firmware Updates,  
SNMP Management,  
DHCP.
- **X21 Port**  
64Kbps to 384Kbps,  
Backup over IP.
- **Telemetry**  
2xIsolated Inputs,  
2xIsolated Outputs,  
Async Serial Port.
- **Audio Over IP**  
Linear, APTX , G.722,  
FS 8KHz to 48KHz,  
Forward Error Control,  
Digital Clock Recovery,  
10/100 Base-T,  
Unicast, Simulcast,  
Independent TX and RX  
Audio Modes.
- **Multi-Algorithm**  
G.722,  
APTX,  
Linear.
- **Features**  
Low Cost Solution for  
Transmitter Links,  
Fully Automated X21  
to IP Backup,  
Talk Back Circuits  
over public internet,  
Remote Configuration  
and Maintenance.



SystemBase

C600ip Series

# Technical Specifications

C600ip	
<b>AUDIO PERFORMANCE</b>	
Coding Standards	G.722, APTX-100, Linear PCM
Analogue S/N Ratio	>102dB
Headroom	+12dBu Max or +18dBu Max
Input Impedance	>10K ohms
Output Impedance	<100 ohms
Physical Connectors	XLR
Sample Rate / Resolution	48KHz / 24Bit
<b>AES3</b>	
Physical Connectors	XLR
Sample Rate / Resolution	48KHz / 24Bit
<b>ETHERNET</b>	
Management Port	yes
Audio/Management Port	yes
Backup/Restore Settings	yes
Firmware Flash Updates	yes
Web Server	yes
SNMP	yes
DHCP	yes
<b>X21 AUDIO MODES</b>	
APTX: 8/16/32/48 FS	Mono/Stereo (64-384KBps)
<b>AUDIO OVER IP</b>	
Linear PCM: 16/32/48 FS	Mono/Stereo
APTX: 8/16/32/48 FS	Mono/Stereo
G.722: 16 FS	Mono/Stereo
FEC (Forward Error Control)	User Selectable
Unicast / Simulcast	yes
Digital Clock Recovery	yes
Recovery Buffer	yes
DHCP	yes
<b>POWER</b>	
Voltage	80-260VAC 50/60Hz
Connector	IEC Mains Plug
Consumption	20W
<b>PHYSICAL</b>	
Weight	2.5Kg
Height	45mm (1U)
Width	480mm(19")
Depth	175mm

## Typical IP Bandwidth Figures

	Packet Interval (ms)	Average Bit Rate		Audio-to-Audio Delay
		FEC (off)	FEC (1:4)	
<b>LINEAR PCM</b>				
48KHz Stereo	4 ms	2080 Kbps	2600 Kbps	23 ms
48KHz Mono	4 ms	1120 Kbps	1400 Kbps	23 ms
32KHz Stereo	6 ms	1386 Kbps	1733 Kbps	33 ms
32KHz Mono	6 ms	746 Kbps	933 Kbps	33 ms
16KHz Stereo	12 ms	693 Kbps	866 Kbps	58 ms
16KHz Mono	12 ms	373 Kbps	466 Kbps	58 ms
8KHz Stereo	24 ms	346 Kbps	433 Kbps	112 ms
8KHz Mono	24 ms	186 Kbps	233 Kbps	112 ms
<b>APTX</b>				
48KHz Stereo	4 ms	640 Kbps	800 Kbps	30 ms
48KHz Mono	4 ms	400 Kbps	500 Kbps	27 ms
32KHz Stereo	6 ms	426 Kbps	533 Kbps	40 ms
32KHz Mono	6 ms	266 Kbps	333 Kbps	38 ms
16KHz Stereo	12 ms	213 Kbps	266 Kbps	68 ms
16KHz Mono	12 ms	133 Kbps	166 Kbps	66 ms
8KHz Stereo	24 ms	106 Kbps	133 Kbps	128 ms
8KHz Mono	24 ms	66 Kbps	83 Kbps	128 ms
<b>G.722</b>				
16KHz Stereo	12 ms	213 Kbps	266 Kbps	61 ms
16KHz Mono	12 ms	133 Kbps	166 Kbps	60 ms

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