

KEIGA + LIBRE Wireless

Enable Multi Room Wireless Sound Streaming Possibility



Bring wireless smart home device capabilities into a pro audio system. KEIGA Electronic Inc. has selected LIBRE Wireless Technologies as one of the solutions for designing future wireless multi room sound streaming systems. LIBRE Wireless Technologies provide complete turnkey solutions with wide range of wireless ecosystem and content providers. The LIBRE system offers easy installation utilizing auto discovery with intuitive App assistance, and it is economical yet versatile enough to operate either as a standalone or as an imbedded system within Keiga's advanced amplifiers.

Since 1996, with the core engineering in Switching Power Supplies, DSP, Amplifier, Wireless Audio, FW-APP and Remote Control, KEIGA Electronic Inc. has been a professional audio design and manufacturing resource for the many major ODM and OEM customers. Now, the relative inferiority of wireless systems in areas of low sound quality, long latency, constant interruptions, and the inconvenience in switching/redirecting to multi-zone operation on currently available Bluetooth and WIFI audio systems has been addressed and solved by the LIBRE Wireless technologies. KEIGA stands ready to engineer hardware, firmware and software incorporating LIBRE Wireless technologies, providing turnkey solutions for pro audio equipment to stream in internet music from Spotify, vTuner, Deezer, QQ Music, Tunein, Melon, Tidal and share content from local Bluetooth, Line In, USB and Micro SD to multi rooms. Additional abilities to operate on the same platforms with Google, Amazon, AirPlay, and Miracast smart home environments can be opted in by levels of LIBRE chipsets.

LIBRE WIRELESS Technologies:

4 Chipsets providing various levels of functions and supports

	LS6	LS5B	LS5BV	LS9AD
WiFi and Ethernet	X	X	X	X
UPNP Digital Media Renderer (DMR)	X	X	X	X
Firmware update; Smart WiFi Setup	X	X	X	X
Device Home Web Page	X	X	X	X
SAC using Libre APP (Android/iOS APP)	X	X	X	X
LS Host Control Interface (LUCI)	X	X	X	X
LS Network Control Interface (LUCI)	X	X	X	X
PC application for controlling the device	X	X	X	X
Mobile Ref App – iOS, Android,	X	X	X	X

Player Features

Play, Pause, Seek Forward/Backward, Stop	X	X	X	X
Random playback (e.g. Shuffle play)	X	X	X	X
Repeat Single; Repeat All; Seamless Play	X	X	X	X
Playlists; Preset List; Favorites list	X	X	X	X
Source selection; Fast forward/Rewind	X	X	X	X
Stereo Pair				X

Multi Room Audio (DDMS)

Zone Play basic synchronization w/DDMS	X	X	X	X
DDMS application - Android & iOS APP	X	X	X	X

Services

Spotify Connect	X	X	X	X
vTuner - iRadio Database Management	X	X	X	Gcast
Deezer	X	X	X	
QQ Music; Tunein; Melon; TIDAL	X	X	X	Gcast

Ecosystems

DLNA; AirPlay	X	X	X	X
Miracast (Audio)	X	X	X	
Gcast/Google Voice Assistant				X
Amazon Alexa + 3Mic Far Field Voice	X	X	X	TBA
Amazon Skills (3PDA/AV Gear)	TBA	TBA	TBA	TBA
MSFT Cortana				TBA

Automatic Speech Recognition

Number of Mics	X	X	X	X
Noise reduction, Beam forming, , Barge-in, Auto Echo Cancellation, Key Word Detection/Sensory	X	X	X	TBA

Host Controller

UI Control; External MCU	X	X	TBA	TBA
Self-Hosted (no ext. MCU needed)	X	X	TBA	TBA

Hardware & I/O Support

USB Host Mode	X	X	X	X
iPod/iPad/iPhone Dock (Lightening)	X	X	X	
iAP 2 support; USB Docking (iOS);	X	X	X	
USB Playback (MSD)	X	X	X	X
Reset input signal; SPI; UART; I ² C/Stereo	X	X	X	X
SPDIF Out				X
Libre Debugging Tool; TELNET support	X	X	X	X

Audio formats and protocols

AAC LC/LTP; HE-ACCv1/v2; FLAC; MP3	X	X	X	X
AMR-NB/WB	X	X	X	X
Vorbis; PCM/WAVE; ALAC	X	X	X	X
WMA Streaming (including MMS & WMS)	X	X	X	
Shoutcast Streaming Protocol	X	X	X	
HTTP/1.1 Audio Transport	X	X	X	X

SD Memory Media

File system (FAT, FAT32 and NTFS)	X			
MP3; FLAC; WAV; AAC	X			

Audio Quality

48Khz (44.1KHz) / 16bits	X	X	X	X
96khz/16 bit & 24-bit WAV; 24-bit FLAC		X	X	X
192khz/24-bit WAV & FLAC		X	X	X

Security

LibreStream Authentication/Security	X	X	X	X
Encrypted FLASH image, secure boot, secure transactions; ACP sharing	X	X	X	X
Apple Authentication Co-processor	X	X	X	X

Networking

WiFi 802.11 b/g/n, 1x1, 2.4GHz - xxxx		X	X	X
WiFi 802.11 a/b/g/n, 1x1, 2.4/5GHz xxxx				X
WiFi+BT, 802.11 b/g/n+BT4.0, 1x1, 2.4GHz		External BT		X
WiFi 802.11 b/g/n, 2x2, 2.4GHz - xxxx	X			
WiFi 802.11 a/b/g/n, 2x2, 2.4/5GHz - xxxx				X
WiFi 802.11 a/b/g/n/ac, 1x1, 2.4/5GHz - xxxx				X
Infrastructure mode; Web/TFTP server	X	X	X	X
TCP/IP tunneling; WiFi Direct	X	X	X	X

Bluetooth

A2DP; AVRCP; UART; WiFi/BT Coexistence		External BT Module		X
HFP; HSP		External BT Module		TBD
AAC; SDIO Control Interface				TBD

Easy WiFi Network Setup

Soft AP WiFi connection/config method	X	X	X	X
WiFi Setup using WPS2.0 – PBC/PIN	X	X	X	X
WiFi Network Login Sharing over WiFi network/using iAP Protocol - USB	X	X	X	TBD

KEIGA + LIBRE Wireless Solutions:

Whether embedding one of the LIBRE Wireless chipsets in a KEIGA designed amplifier or as a standalone pro audio device, custom installers can easily setup a wireless sound environment for a house or an office providing music follow-you and multiroom functions with streaming content from either Internet and local sources. For more information, please contact:

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