Title: GXP2200 Circuits Description

General description

GXP2200 comprises the following subsystems:

- The ARM + Cortex multimedia processor

- Two external Ethernet Switch,one for LAN,one for PC.

- Four external SDRAM code execution and data

- A iNAND flash for code/data storage

- MMI parts as keyboard, LED and acoustic components

GXP2200 include MB, KP, Power Adapter;

MB:

- DMW96

DMW96 is a third generation System on a Chip(SoC),a member of the DSP XpandR^{TM} chipset.DMW96 is a highly integrated family of wireless multimedia processors that implements a multicore architecture for improved performance in wireless, connected multimedia applications.

The DMW96 family is based on an ARM Cortex^{TM} A8 with video and graphic hardware accelerators for video,audio and 2D/3D applications,along with two wireless moderns supporting 802.11 and DECT protocols.It is available with a communication (cordless) subsystem based on the ARM926EJ-S^{TM} core, voice coprocessor engines, and a security subsystem. The DMW96 family targets multimedia home applications that require video,audio and voice capabilities together with a rich, interactive and easy-ot-use graphical user interface.

- SDRAM Memory

SDRAM is a high-speed synchronous dynamic random access memory,organized as 1GBIT*4,WIDE 8 bit(512MB),up to 246MHz Clock Frequency, it connect DMW96 with

memory interface,boot and program is run in SDRAM;

- Flash

The Flash is a 4GB memory, it used for store program, it connect with DMW96;

- Ethernet Switch

Ethernet Switch can support one 10/100/1000 Manage . it connect with

LAN port that used to transmission data, LAN port connect with Ethernet;

- Power Module

Power Module is supply +1V3D, +1V8D,+3V3D ,+5VD,+1V0D, +1V2D,VDD_MICREF

voltage, It contain 1 LDOS and 5 DC-DC;

+1V0D is used for Ethernet core;

+ 1V3D is used for DMW96 core;

+ 1V8D is used for DMW96 1V8D I/O GPIO,CODEC and DDR2 SDRAM;

+ 3V3D is used for DMW96 3V3D I/O,iNAND flash,Ethernet,Bluetooth,SD

Card,LCD,CODEC and LEDs;

+5VD is used for LCD backlight，CODEC amplifier and USB port;

POE Module supply +10.8V voltage.

GXP2200 TECHNICAL SPECIFICATIONS

Table 1: GXP2200 TECHNICAL SPECIFICATIONS

Protocols and Standards	SIP RFC3261, TCP/IP/UDP, RTP/RTCP, HTTP/HTTPS, ARP, ICMP, DNS (A record, SRV, NAPTR), DHCP, PPPoE, TELNET, TFTP, NTP, STUN, SIMPLE, LLDP, LDAP, TR-069, 802.1x, IPv6, TLS, SRTP
Network Interfaces	Dual switched 10/100/1000Mbps ports with integrated PoE
Graphic Display	480x272 capacitive touch screen TFT LCD
Bluetooth	Yes, integrated
Auxiliary Ports	RJ9 headset jack (allowing EHS with Plantronics headsets), USB, SD, extension module port
Feature Keys	10 function keys for MUTE, HOLD, PHONEBOOK, MESSAGE, HEADSET, TRANSFER, CONFERENCE, VOLUME, SPEAKER, SEND/REDIAL, 4 Android navigations control keys for HOME, MENU, SEARCH, BACK
Voice Codec	Support for G.711u/a, G.722 (wide-band), G.729A/B
Audio Codec	AAC, MP3, AMR, WAVE, MIDI, Vorbis
Video Decoder	H.264 BP/MP/HP, H.263/H.263+, MPEG4, up to 1080p resolution
Telephony Features	Hold, transfer (unconditional/no answer/busy), forward, call park/pickup, 5-way conference, shared-call-appearance (SCA)/bridged-line-appearance (BLA), virtual BLF/speed-dial extensions, downloadable phone book (XML, LDAP, up to 1000 items), call waiting, call log (up to 500 records), boss-secretary virtual button, flexible dial plan, hot desking, personalized music ringtones, server redundancy and fail-over
Sample Applications	Skype, Google Voice, Microsoft LYNC, Web browser, Adobe Flash, Facebook, Twitter, Youtube, news/weather/stock, Internet Radio, Pandora, Last.fm, Yahoo Flickr, Photobucket, alarm clock, Google Calendar, PBX-in-phone, mobile phone data import/export via Bluetooth, and etc. API/SDK available for advanced custom application development
Applications Deployment	Allow various Android 2.3 compliant applications to be developed, downloaded and run in the embedded device with provisioning control
HD Audio	Yes, HD handset and speakerphone with support for wideband audio
Base Stand	Yes, integrated stand with 2 adjustable angles
QoS	Layer 2 (802.1Q, 802.1p) and Layer 3 (ToS, DiffServ, MPLS) QoS
Security	User and administrator level passwords, MD5 and MD5-sess based authentication, 256-bit AES encrypted configuration file, TLS, SRTP, HTTPS, 802.1x media access control
Multi-language	English, German, Italian, French, Spanish, Portuguese, Russian, Croatian, Chinese, Korean, Japanese and etc
Upgrade and Provisioning	Firmware upgrade via TFTP/HTTP/HTTPS or local HTTP upload, mass provisioning using TR-069 or AES encrypted XML configuration file

Power and Green Energy Efficiency	Universal power adapter: Input: 100-240VAC 50-60Hz; Output: 12VDC, 1.5A (supplying power for up to 4 cascaded GXP2200EXT) Integrated Power-over-Ethernet (802.3af, class 0); Max power consumption 10W (power adapter, no GXP2200EXT), 12W (PoE, no GXP2200EXT), or 18W (power adapter only, with 4 cascaded GXP2200EXT)
Physical	Unit dimension: 188mm (W) x 210mm (H) x 85mm (D) (handset onhook) Unit weight: 0.86kg Package weight: 1.42kg
Temperature and Humidity	32-104 ^{o}F / 0-40 ^{o}C, 10-90% (non-condensing)
Package Content	GXP2200 phone, handset with cord, universal power supply, network cable, quick start guide
Compliance	FCC Part 15 (CFR 47) Class B; EN55022 Class B, EN55024, EN61000-3-2, EN61000-3-3, EN60950-1; AS/NZS CISPR 22 Class B, AS/NZS CISPR 24, RoHS; UL 60950 (power adapter)

RF Specification

Transmitter Frequency:	2402~ 2408 MHz		
Receiver Frequency:	2402~ 2408 MHz		
RF-Output Power (E.I.R.P):	0dBm		
Type of Modulation:	GFSK		
Antenna information:	Antenna Name	Model(s)/Type(s)	
	RF Antenna Assembly	Model/Part Number:	SLB-100030060
		Manufacturer:	Cambridge Semiconductor, CamSemi
		Frequency Range:	2.4GHz~2.5GHz
		Connector Type/ Maximum Gain	soldering /2dBi
		Antenna Type/ Pattern:	PCB Antenna
		Measurement:	L=60mm(Tin)