UCM6510
IP PBX Appliance

Grandstream
Innovative IP Voice & Video

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The UCM6510 is an innovative IP PBX appliance for E1/T1/J1 networks that brings enterprise-grade Unified Communications and security protection to enterprises, small-to-medium businesses (SMBs), retail environments and residential settings in an easy-to-manage fashion. Powered by an advanced hardware platform and revolutionary software functionalities, the UCM6510 offers a breakthrough turnkey solution for converged voice, video, data, fax, security surveillance, and mobility applications out of the box without any extra license fees or recurring costs.

Feature Highlights

- 1GHz quad-core Cortex A9 application processor, large memory (1GB DDR3 RAM, 32GB Flash) and dedicated high performance multi-core DSP array for advanced voice processing
- 1 integrated T1/E1/J1 interface, 2 PSTN trunk FXO ports, 2 analog telephone/Fax FXS ports with lifeline capability in case of power outage and unlimited SIP trunk accounts
- Hardware DSP based 128ms-tail-length carrier-grade line echo cancellation (LEC), hardware based caller ID/call progress tone and smart automated impendance matching for various countries
- Gigabit network port(s) with integrated PoE, USB, SD card; integrated NAT router with advanced QoS support
- Strong defense against malicious attacks (Fail2ban, Whitelist, Blacklist, alerts, etc.)
- Data communication via T1/E1/J1 and data-voice combined communication via T1/E1/J1 with SS7 or PRI
- Supports up to 2000 SIP endpoint registrations, up to 200 concurrent calls (up to 100 SRTP encrypted concurrent calls) and up to 64 simultaneous conference attendees
- Flexible dial plan, call routing, site peering, call recording (manual & automatic per SIP call & SIP trunk), control panel for endpoints, integrated NTP server & integrated LDAP contact directory
- Automated detection and provisioning of IP phones, video phones, ATAs, gateways, SIP cameras and other endpoints for easy deployment
- Strongest-possible security protection using SRTP, TLS and HTTPS with hardware encryption accelerator
- Redundant power supply, support for Hot Standby Clustering & High Availability to minimize system down time (pending)
- Automatic export of previous day's data; periodically cleans up user data

Corporate Headquarters:
126 Brookline Avenue, 3rd Floor
Boston, MA 02215, USA

Regional Offices: Dallas, TX, USA | Los Angeles, CA, USA | Casablanca, Morocco | Valencia, Venezuela | Hangzhou, China | Shenzhen, China

Grandstream Networks, Inc. **www.grandstream.com** **info@grandstream.com**

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UCM6510
Technical Specifications

Interfaces	
Analog Telephone FXS Ports	2 RJ11 ports (both with lifeline capability in case of power outage)
PSTN Line FXO Ports	2 RJ11 ports (both with lifeline capability in case of power outage)
T1/E1/J1 Interface	1 RJ45 port
Network Interfaces	Dual Gigabit ports (switched or routed) with PoE; A 3rd Gigabit port for Hot-Standby Clustering
NAT Router	Yes (user configurable)
Peripheral Ports	USB, SD
LED Indicators	Power 1/2, PoE, USB, SD, T1/E1/J1, FXS 1/2, FXO 1/2, LAN, WAN, Cluster Heartbeat
LCD Display	128x32 dot matrix graphic LCD with DOWN and OK buttons
Reset Switch	Yes, long press for factory reset and short press for reboot
Voice/Video Capabilities	
Voice-over-Packet Capabilities	LEC with NLP Packetized Voice Protocol Unit, 128ms-tail-length carrier grade Line Echo Cancellation, Dynamic Jitter Buffer, Modem detection & auto-switch to G.711
Voice and Fax Codecs	G.711 A-law/U-law, G.722, G.723.1 5.3K/6.3K, G.726, G.729A/B, iLBC, GSM, AAL2-G.726-32, ADPCM; T.38
Video Codecs	H.264, H.263, H263+
QoS	Layer 3 QoS, Layer 2 QoS
Signaling & Control	
DTMF Methods	In Audio, RFC2833, and SIP INFO
Digital Signaling	PRI, SS7, MFC/R2, RBS (pending)
Provisioning Protocol & Plug-and-Play	TFTP/HTTP/HTTPS, auto-discovery & auto-provisioning of Grandstream IP endpoints via ZeroConfig (DHCP Option 66/multicast SIP SUBSCRIBE/mDNS), eventlist between local and remote trunks
Network Protocols	TCP/UDP/IP, RTP/RTCP, ICMP, ARP, DNS, DDNS, DHCP, NTP, TFTP, SSH, HTTP/HTTPS, PPPoE, SIP (RFC3261), STUN, SRTP, TLS, LDAP, HDLC, HDLC-ETH, PPP, Frame Relay (pending)
Disconnect Methods	Call Progress Tone, Polarity Reversal, Hook Flash Timing, Loop Current Disconnect, Busy Tone
Security	
Media Encryption	SRTP, TLS, HTTPS, SSH
Advanced Defense	Fail2ban, alert events, Whitelist, Blacklist, strong password based access control
Physical	
Universal Power Supply	Input: 100 ~ 240VAC, 50/60Hz; Output: DC+12V, 1.5A;
Physical	Unit Weight: 2.165 kg; Package Weight: 3.012 kg
Dimensions	440mm(L) x 185mm(W) x 44mm(H)
Environmental	Operating: 32 - 113ºF / 0 ~ 45ºC, Humidity 10 - 90% (non-condensing) Storage: 14 - 140ºF / -10 ~ 60ºC, Humidity 10 - 90% (non-condensing)
Mounting	Rack mount & Desktop
Additional Features	
Multi-Language Support	English/Simplified Chinese/Traditional Chinese/Spanish/French/Portuguese/German/Russian/Italian/Polish/Czech for Web UI; Customizable IVR/voice prompts for English, Chinese, British English, German, Spanish, Greek, French, Italian, Dutch, Polish, Portuguese, Russian, Swedish, Turkish, Hebrew, Arabic
Caller ID	Bellcore/Telcordia, ETSI-FSK, ETSI-DTMF, SIN 227 – BT, NTT Japan (pending)
Polarity Reversal/Wink	Yes, with enable/disable option upon call establishment and termination
Call Center	Multiple configurable call queues, automatic call distribution (ACD) based on agent skills/availability/ work-load, in-queue announcement
Customizable Auto Attendant	Up to 5 layers of IVR (Interactive Voice Response)
Maximum Call Capacity	Up to 2000 registered SIP endpoints, up to 200 concurrent calls
Conference Bridges	Up to 8 bridges, up to 64 simultaneous conference attendees
Call Features	Call park, call forward, call transfer, DND, DISA, ring group, pickup group, blacklist, paging/intercom etc.
Compliance	FCC: Part 15 (CFR 47) Class B, Part 68 CE: EN55022 Class B, EN55024, EN61000-3-2, EN61000-3-3, EN60950-1, TBR21, RoHS RCM: AS/NZS CISPR 22, AS/NZS CISPR 24, AS/NZS 60950, AS/ACIF S002 ITU-T K.21 (Basic Level); UL 60950 (power adapter) T1: TIA-968-B Section 5.2.4 E1: TBR12/TBR13, E1: AS/ACIF