## AudioCodes Enabling Technology Products

# Tulip AC494 ATA



The **Tulip AC494 ATA** is a complete, ready-to-use reference design of an Analog Telephone Adapter (ATA) with data routing capabilities. Utilizing AudioCodes field-proven DSP VoIP software and the integrated AC494 System on Chip (SoC), the Tulip AC494 ATA offers OEMs and ODMs an excellent and cost-effective solution for the rapidly growing residential and Small Office / Home Office (SOHO) VoIP market.

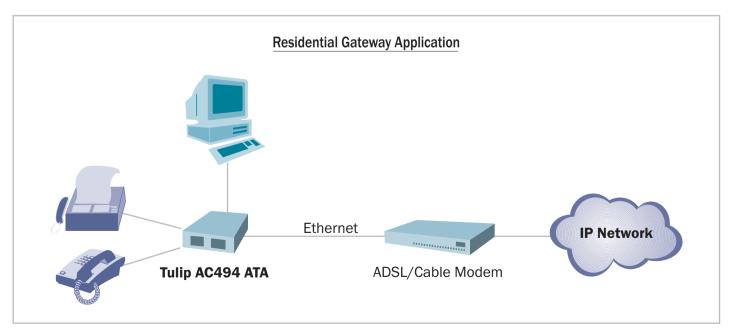
#### **ENABLE FLEXIBLE AND EASY INTEGRATION**

The Tulip AC494 ATA reference design was carefully developed to meet Analog Telephone Adapter requirements. With flexible and configurable software, customers can customize the Tulip AC494 ATA software to match their own look and feel.

Broadband Access OEMs/ODMs (xDSL, Cable, Wireless, FTTx) will find the Tulip AC494 ATA a quick and efficient addition to their products, adding feature rich VoIP functionality to their access devices by easily integrating them within a short time period.

#### PROVIDE COST-EFFECTIVE DEPLOYMENT

The Tulip AC494 ATA reference design comes with single or dual FXS ports module to optimize cost per application. The product has a cost-effective Bill of Materials (BOM) to support aggressive market cost demands. An additional data port provides the option to connect a PC to the ATA without supplementary hardware. Special attention was given in designing the hardware and PCB to shorten customers' investment in the homologation process.





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#### **SPECIFICATIONS**

Software*	
VoIP Signaling Protocols	SIP - RFC 3261, 3262, 3263, 3264, 2327
	H.323 v4**
	MGCP – RFC 2705**
Data Protocols	IPv4, TCP, UDP, ICMP, ARP
Data Protocois	PPPoE – RFC 2516
	DNS, Dynamic DNS
	IEEE 802.1p/q QoS (VLAN tagging)
	Layer 2 switching or
	WAN to LAN Layer 3 routing with:
	<ul> <li>DHCP Client/Server – RFC 2132</li> </ul>
	<ul> <li>NAT – RFC3022, Application Layer Gateway (ALG)</li> </ul>
	• Firewall**
Media Processing	Voice Coders - G.711, G.723.1, G.726, G.729A/B, GSM FR, iLBC**
	Wideband Coders – G.722, G.722.2 (WB-AMR)
	Fax – T.38 Relay, Bypass (V.150.1), T.38 over RTP (planned)
	Echo Cancellation – G.168-2004 compliant, 64 msec tail length
	Silence Suppression – VAD, CNG
	Adaptive Jitter Buffer 300 msec
Packetization	RTP/RTCP Packetization – RFC 3550, 3551, 2198
	DTMF Relay - RFC 2833
Tolonhony Foatures	3-way conferencing
Telephony Features	Call Forward
	Call Hold
	Call Transfer
	Call Waiting
Configuration/ Management	Embedded Web Server for Configuration and Management
	Remote upgrade by HTTP
	SNMP
	Telnet
Security	SRTP** (Secured RTP) per RFC 3711, 128 bit AES, HMAC SHA1
	HTTPs for Web-based configuration
	Password protected Web pages (MD5)
	SIP over TLS**
	IPSec
Telephony Signaling	In-band:
	DTMF – Detection and Generation, TIA464B
	Caller ID – Telcordia/ETSI/NTT Type I/II (on hook / off hook)
	Programmable Call-Progress Tones
	Out of band:
	FXS Loop/Ground-start
	On/Off Hook, Flash Hook, Polarity Reversal
	Message Waiting Indication (MWI)
	Distinctive Ringing
	Pulse dialing**
	Metering Tones – 12 or 16 KHz

Hardware	
Power	+12 VDC, 0.5 A
Interfaces	RJ-45 - 10/100 BASE-T for LAN
	RJ-45 - 10/100 BASE-T for WAN
	2 x RJ-11 – 2 FXS lines for telephones (POTS
LED Indications	LAN activity on Ethernet Ports
	Power on, Line 1, Line 2
SLIC characteristics	Maximum Ringer Load (REN) – 5
	Short Haul
	Ringer Voltage – 65 Vrms
	Configurable Terminating Impedance

#### **ABOUT AUDIOCODES**

AudioCodes Ltd. (NASDAQ: AUDC) enables the new voice infrastructure by providing innovative, reliable and cost-effective Voice over Packet technology and Voice Network products to OEMs, network equipment providers and system integrators. AudioCodes provides its customers and partners with a diverse range of flexible, comprehensive media gateway and media processing technologies, based on VoIPerfect™ - AudioCodes' underlying, best-of-breed, core media gateway architecture. The company is a market leader in voice compression technology and is a key originator of the ITU G.723.1 standard for the emerging Voice over IP market. AudioCodes voice network products feature media gateway and media server platforms for packet-based applications in the converged, wireline, wireless, broadband access, and enhanced voice services markets. AudioCodes enabling technology products include VoIP and CTI communication boards, VoIP media gateway processors and modules, and CPE devices. AudioCodes headquarters and R&D facilities are located in Israel with an R&D extension in the U.S. Other AudioCodes' offices are located in Europe, the Far East, and Latin America.

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<sup>\*</sup> Please contact AudioCodes for specific software availability

<sup>\*\*</sup> Optional