

SYSTEM REQUIREMENTS

- Board Power Requirement
 - Dual Redundant –48 V to –60 VDC (TNV-2)
 - Input Range: -39 to –72 VDC
 - Power consumption estimate: up to 270 W
- Board Thermal Characteristics
 - Operating Range: -5 °C to +55 °C ambient
 - Cooling requirement: CP-TA B.4 system
- Supported Deployment Environments
 - Artesyn Centellis 2000 and 4000 family of CP-TA B.4 class ATCA platforms

BOARD SOFTWARE ENVIRONMENT

- Multicore Packet Processing CPU (board controller)
 - Mentor Graphics Linux BSP
 - Wind River Linux 4.x BSP (by request)
 - Artesyn Basic Blade Services for ATCA-8320
 - All necessary device drivers
 - Control, boot, mgmt of DSPs
 - Firmware upgrade utility
 - IPMI support
 - SRStackware Switch Management
 - Packet Forwarder supporting NAT
 - CLI and SNMP user interfaces
 - Technical Specifications (contd.)
- Application Processing CPU
 - Full driver package for RNEL
 - Vocallo APIs
- DSP Programmers Environment
 - Octasic Vocallo API set and documentation
 - Octasic Debug Tools

Principal Part Ordering Details

Part Number	Description
ATCA-8320-0-T0	ATCA BLADE - P4080/2GB - no I7-620LE - no DSP - 2 FREE MODULE SLOTS - SW LICENSES: P4080 BBS
ATCA-8320-IA-T0	ATCA BLADE - P4080/2GB - I7-620LE/4GB - no DSP - 2 FREE MODULE SLOTS - SW LICENSES: P4080 BBS
ATCA-8320-IA-O12	ATCA BLADE - P4080/2GB - I7-620LE/4GB - 12 X OCT2224M/512MB - 1 FREE MODULE SLOT - SW LICENSES: VOICE, P4080 BBS
ATCA-8320-IA-V12	ATCA BLADE - P4080/2GB - I7-620LE/4GB - 12 X OCT2224M/512MB - 1 FREE MODULE SLOT - SW LICENSES: VOICE, BASIC VIDEO, P4080 BBS
8320-MEZZ-O5 / -O9 / -O12	DSP MODULE FOR ATCA-8320 - 5 / 9 / 12 X OCT2224M/512MB - SW LICENSES: VOICE
8320-MEZZ-V5 / -V9 / -V12	DSP MODULE FOR ATCA-8320 - 5 / 9 / 12 X OCT2224M/512MB - SW LICENSES: VOICE, BASIC VIDEO
ARTM-831X-IP	REAR TRANSITION MODULE WITH 1X10GE-4X1GBE

Product is end of life

IMPORTANT NOTICE - STANDARDS ESSENTIAL PATENTS AND THE USE OF CODECS

The Artesyn End User License Agreement covering software related to the ATCA-8330 does not represent or warrant that the codec software is free of infringement of any third party patents, copyrights, or trade secrets. Many codecs and other recognized standards may require licensing arrangements involving the execution of license agreements or payment of fees to an intellectual property rights (IPR) holder or an IPR agent acting on behalf of the IPR holder.

It is the user's responsibility to determine, for any codecs or other standards they intend to use, whether any additional IPR licenses are required, including the payment of royalties or license fees. The availability of implementations including codecs packaged in products acquired from Artesyn does not imply the right to practice these standards nor does Artesyn grant a license or the right to use or practice some or all of these standards. Depending on the country involved, the end user may be legally obliged to contact an IPR holder or agent and conform to their patents licensing requirements.

STANDARDS ESSENTIAL PATENTS

Standards Essential Patents (SEPs) are an unavoidable consequence of complex standards developed by consortia. Patents are essential when the technology covered by the patent must be practiced in order to comply with the Standard. A patent is typically defined as essential if a standard cannot be practiced without infringing the patent. The contributor of the IP is usually a company involved in the standards process and almost always retains ownership. Companies that own SEPs that are often members of standards setting organizations (such as ETSI or IEEE) and may be required to declare that they will license their patents on Reasonable And Non-Discriminatory (RAND) terms. Most standards organizations do not review patents alleged to be essential to determine that they in fact are essential. This is a determination that may not occur until decided in a contested legal matter.

COVERAGE FOR STANDARDS-ESSENTIAL PATENTS (See Table 1)

Artesyn does not generally provide indemnification against infringement of SEPs related to codecs, but there are some exceptions where Artesyn does offer limited indemnification. Table 1 summarizes Artesyn's understanding of licensing requirements with respect to selected codecs. Except where specifically stated that Artesyn does offer indemnification, it should be understood that Artesyn does not offer indemnification.

COVERAGE FOR NON-ESSENTIAL PATENTS

Non-Essential patents are by definition patents that are not necessarily infringed in order to practice the standard implemented by a codec. As part of a custom license, Artesyn may offer indemnification against infringement of non-essential patents with respect to the codecs embedded in the ATCA-8330 software. Contact your Artesyn sales representative for further details.

A NOTE ON WIRELESS VOICE CODECS

Although the patent situation for wireless voice codecs is very complex, it is not standard industry practice for embedded board-level product manufacturers like Artesyn to offer IPR licensing cover for AMR and EVRC codecs because they are not well placed in the IPR value chain. Therefore, Artesyn does not typically offer indemnification for AMR and EVRC codecs. The IPR holders usually approach end-product manufacturers because many end-products include additional standards compliant technologies that may infringe patents. Many IPR holders prefer to offer portfolio licenses that cover much more than just the codecs. Additionally, a starting point for licensing is based on the number of channels used in a product, and the end-product manufacturer is much better placed to quantify and control usage than the embedded technology provider. Artesyn strongly recommends that customers undertake a full product mapping exercise to determine the feature sets that need to be covered by patent portfolios.

Table 1

CODEC FAMILIES AND STANDARDS ESSENTIAL PATENTS

Class	CODEC Family	Standards Essential Patent Situation
Wireline Voice	G.711 PCM	Artesyn believes that these codecs are currently unencumbered by standards essential patents.
	G.722 Wideband	
	G.726 ADPCM	
	G.723.1	Indemnification for infringement of SEPs for these codecs is included within the Artesyn custom license described here.
	G.729AB	
	G.722.1	G.722.1 (also known as "Siren") is licensed royalty free by Polycom provided that the end-product manufacturer executes the license at http://www.polycom.com/company/about-us/technology/siren.html . Customers interested in this codec should contact Polycom directly.
iLBC	iLBC is an open source royalty-free codec available directly to Customers under the "revised BSD" license. The full text of the Revised BSD License can be found at: http://opensource.org/licenses/BSD-3-Clause .	
Wireless Voice	GSM FR	GSM and GSM AMR codecs may incorporate SEPs held by Ericsson, Voiceage, Nokia, NTT, and France Telecom. Please see "A NOTE ON WIRELESS VOICE CODECS".
	GSM AMR	
	GSM AMR WB	
	EVRC-A	EVRC codecs may incorporate SEPs held by Qualcomm, Ericsson, NTT, France Telecom and others. Please see "A NOTE ON WIRELESS VOICE CODECS".
	EVRC-B	
Internet Voice	SILK	SILK can be used royalty free under a patent license at http://developer.skype.com/silk/license . Customers interested in SILK should contact Skype directly.
	SPEEX	Speex is an open source royalty-free codec available directly to Customers under the "revised BSD" license (see iLBC above for reference).
	Opus	Opus is an open source royalty-free codec available directly to Customers under the "revised BSD" license (see iLBC above for reference).
Video	H.263	MPEG LA (www.mpegla.com) offers coordinated patent licenses for video codecs to end-product manufacturers. Customers interested in these codecs should contact MPEG-LA directly.
	MPEG-4	
	H.264	

SOLUTION SERVICES

Artesyn Embedded Technologies provides a portfolio of solution services optimized to meet your needs throughout the product lifecycle. Design services help speed time-to-market. Deployment services include global 24x7 technical support. Renewal services enable product longevity and technology refresh.

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