

XS-3100

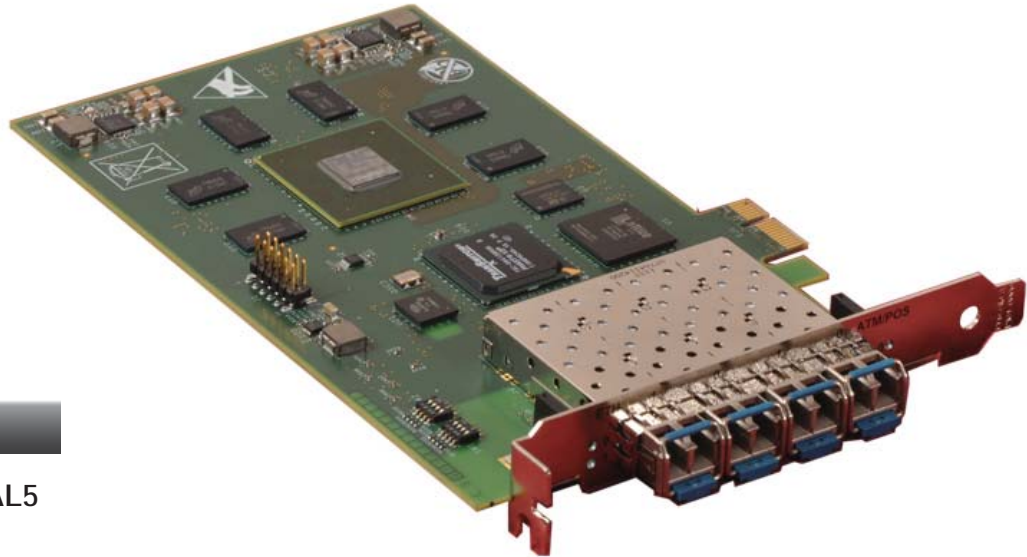
Dual OC-3 & Gigabit Ethernet

Applications

- ▶ 3G, LTE & WiMAX Network: Control, Backhaul, Baseband and PHY.
- ▶ Voice over Packet
- ▶ Video Streaming
- ▶ Broadband Networks
- ▶ ATM to IP Gateways
- ▶ DSLAMs

Main Features

- ▶ ATM AAL0, AAL1, AAL2 & AAL5
- ▶ Packet over SONET (POS)
- ▶ 2 x OC-3/STM-1
- ▶ 1 x OC-12/STM-4 (XS-3100E)
- ▶ 2 x Gigabit Ethernet
- ▶ PCI Express
- ▶ Automatic Protection Switching
- ▶ WinPath3™ Network Processor
- ▶ Dual On-board 32-bit MIPS 34K™
- ▶ 3 x 256 MB DDR3
- ▶ 256 MB NAND Flash EPROM
- ▶ SFP Optical Transceivers



XS-3100 is a PCI Express card which offers high-end ATM and IP services in a compact form factor. XS-3100 provides termination, switching and interworking capabilities from any port to any port.

XS-3100 performance and features are ideally suited for applications such as Wireless networking, Voice over Packet, DSLAM and Media Signaling Gateways.

Using the state of the art third generation Wintegra™'s WinPath3™ Network Processor, XS-3100 is the perfect interface to handle both ATM and IP simultaneously.

XS-3100 on-board dual MIPS 34K processors can run advanced protocols (e.g. 3GPP, SS7, ATM, VoIP) while the Network Processor handles all the data path.

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XALYO SYSTEMS

ATM

- ▶ AAL0, AAL1, AAL2 & AAL5 **1**
- ▶ ATM cell switching
- ▶ AAL2 CID switching
- ▶ Traffic management as per TM 4 .1:
CBR, VBR, GFR and UBR
- ▶ Per VC queueing
- ▶ Full UNI/NNI VPI/VCI range
- ▶ OAM F4 and F5 as per ITU-T I.610

Network Processor

- ▶ Wintegra™ WinPath3™ **2**
- ▶ 256 MBytes Packet DDR3
- ▶ 256 MBytes Parameter DDR3
- ▶ 256 MBytes Application DDR3
- ▶ 32-bit / 533 MHz DDR3
- ▶ Dual MIPS 34K™ CPU @ 600 MHz
- ▶ 6 WinGines @ 320 MHz
- ▶ 2.5 MBytes Internal Memory
- ▶ For more details see www.wintegra.com

System busses

- ▶ PCI Express **4**
- ▶ x1
- ▶ 2.5 Gbps
- ▶ Microprocessor bus **5**
- ▶ 16 bit
- ▶ 256 MBytes NAND Flash

Interworking and QoS

- ▶ IPv4 and IPv6 Routing **3**
- ▶ Multicast
- ▶ MPLS
- ▶ Packet Switching
- ▶ IEEE1588v2
- ▶ Synchronous Ethernet
- ▶ NAT/PAT
- ▶ PWE3 (CESoPSN & SATOP)
- ▶ GRE, GTP and L2TP
- ▶ Bridging
- ▶ VLAN Stacking
- ▶ Ethernet OAM
- ▶ Per-flow Queueing
- ▶ WRED

Physical Layer

- ▶ SONET/SDH **6**
- ▶ Dual OC-3/STM-1 ports
- ▶ Single OC-12/STM-4 port (XS-3100E)
- ▶ APS (Automatic Protection Switching)
- ▶ ATM (ITU-T I.432)
- ▶ POS (RFC 1619, RFC 1662)
- ▶ Gigabit Ethernet **7**
- ▶ 2 x 1000BASE-X, or
- ▶ 2 x 1000BASE-T

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Specifications

Form factor	PCI Express x1
Dimensions	Short Length
Processor	Wintegra WinPath3
PCIExpress	1 lane
UTOPIA/POS-PHY bus	16-bit, 50 MHz, L2
Ethernet ports	2 x 1000BASE-X
Optical connector	LC (SFP)
Communication ports	2 x OC-3/STM-1 or 1 x OC-12/STM-4 (XS-3100E) 2 x Gigabit Ethernet
Protocols	ATM and IP
Flash memory	256 MBytes NAND
Host memory	256 MBytes DDR3, 533 MHz
Parameter memory	256 MBytes DDR3, 533 MHz
Packet memory	256 MBytes DDR3, 533 MHz
Operating systems	Linux, Vxworks
Operating temperature	0 to 55°C
Storage temperature	-40 to 85°C
Relative humidity	5% to 90% non-condensing
Altitude	0 to 15'000 ft
Power consumption	17 W max (est.)
12 V	0.85 A
3.3V	2.10 A

Standards compliance

PCI Express	PCI Express Base Specification 1.0a
IEEE 802.3	CSMA/CD (Ethernet)
MSA SFP	MultiSource Agreement SFP
RFC 1483	Multiprotocol Encapsulation over AAL5
RFC 1577	Classical IP and ARP over ATM
RFC 1619	PPP over SONET/SDH
RFC 1661	The Point-to-Point Protocol (PPP)
RFC 1662	PPP in HDLC-like Framing
RFC 2474	Definition of the Differentiated Services Field in the IPv4 and IPv6 Headers
RFC 2475	An Architecture for Differentiated Services
RFC 2615	PPP over SONET/SDH
RFC 2684	Multiprotocol Encapsulation over AAL5
ITU-T I.432	B-ISDN User-Network Interface
ITU-T I.363.1	B-ISDN ATM Adaptation Layer Type 1
ITU-T I.363.2	B-ISDN ATM Adaptation Layer Type 2
ITU-T I.363.5	B-ISDN ATM Adaptation Layer Type 5
ITU-T I.366.1	Segmentation and Reassembly Service Specific Convergence Sublayer for the AAL type 2
ITU-T I.610	B-ISDN Operation and Maintenance Principles and Functions

Ordering Information

XS-3100	WinPath3 ATM and IP PCI Express Card 400 MHz, 768 MB SDRAM, 256 MB Flash Dual STM-1 & Dual 1000BASE-X
XS-3100E	WinPath3 ATM and IP PCI Express Card 400 MHz, 768 MB SDRAM, 256 MB Flash Dual STM-1 or Single STM-4 & Dual 1000BASE-X

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