

UltraWAVE X40

GSM Mobile Switching Center



UltraWAVE X40, UltraWAVE BSC and UltraWAVE BTS work hand-in-hand to reduce the total cost of network ownership, providing a network growth path for existing and future customers, and expand the addressable markets of ADC Mobile Network Solutions' GSM products. They serve as the flagship GSM product line for ADC. ADC's UltraWAVE X40 is a compact GSM mobile switch with capacity of up to 64 E1 or T1 ports and 40,000 subscribers.

The UltraWAVE X40 provides a compact and cost effective platform, which helps lower the cost of network ownership. It builds on LGC Wireless' proven GSM architecture by providing a high capacity switching platform in a very compact enclosure. The X40 provides operators with a wide range of features to grow their businesses and includes basic telephony services, audio announcements, built-in prepaid, voicemail and SMSC value added services.

The UltraWAVE X40 digital wireless switch is a cost effective and easy to deploy advanced digital switching platform based on the GSM standard. The dual platform redundant architecture functions as a mobile switching center (MSC) with built-in HLR/VLR with full subscriber mobility management, GMSC, GPRS and IN support. The UltraWAVE X40 is managed by the ADC management system, UltraVIEW OMC, which also manages the UltraWAVE BSC and UltraWAVE BTS products.

UltraWAVE X40 provides switching and mobility management functions for mobile stations within its serving area. It supports MSC, VLR and HLR switch functions, audio announcements and optional services such as IN prepaid, SMSC, AuC, EIR, VMS and ESME. The central switching unit (CSU) is a high capacity TDM and signaling message transport network providing multiple A-Interface and PSTN trunks. Each redundant CSU supports up to 4 eight port E1 or T1 cards providing a total switching capacity of 2 x 32 E1 or T1 ports. The platform performs mobility management, call management, STP, SSF, MAP and BSSMAP functions, conducts performance measurements, and produces call detail records.

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Product Highlights:

- Call forwarding (conditional, unconditional), call waiting, call hold, call transfer
- Calling party based routing, intelligent call routing
- Caller ID, CLIR/CLIP
- E.164 support
- Call intercept
- Dual processor redundancy
- DTMF tones
- Generates GSM & CAMEL compliant CDR records
- MAP-C, MAP-D, MAP-E
- GTT translations, STP functionality
- Support for SMS (MT/MO)
- Implicit IMSI detach and VLR purge
- GPRS support (Gr over SS7)
- Optional built-in IN prepaid functions (CAMEL based SSF)
- Optional built-in SMSC, AuC and EIR functions
- Optional voicemail and external short message entity platforms

Specifications

Interface Capacity:	900 Erlangs @ 0.1% GoS and 25 mErlang per subscriber ¹
Busy Hour Call Attempts:	80,000 total
E1 Ports:	64 (32 + 32)
Trunk Groups:	256
KEY MSC FEATURES	
HLR Capacity:	40,000
VLR Capacity:	40,000
SS7 LinkSets:	32
Redundancy:	Traffic load sharing route redundancy
INTERFACES	
BSC Link:	GSM Compliant A Interface; GSM Spec. 04.08, 08.08; ANSI 1992 CCITT 1988, 1992; BSSMAP, GSM 08.08 DTAP, GSM 04.07, 04.08, SCCP & MTP GSM spec 08.06
PSTN:	ITU ISUP, ITU ISDN PRI, R2 MFC ² , CAMEL Phase II/III
Operations and Maintenance Link:	Ethernet; SNMP based
Transmission:	Eight Port G7.03 compliant E1 75/120 Ohm; eight compliant T1 100 Ohm
Ethernet:	10/100 Mbps Ethernet, RJ-45 connector
POWER SUPPLY	
Input Voltage:	-48 VDC
Power Consumption:	85 Watts (32 + 32 ports)
MECHANICAL	
Rack Mount:	19" rack mounted; cabinet optional
Dimensions (WxDxH):	48.3 x 35.5 x 26.7 cm (19 x 14 x 10.5 inches)
Weight:	16.7 kg (37 lbs)
OPERATING ENVIRONMENT	
Temperature:	10° to 45° C (50° to 113° F)
Humidity (non-condensing):	40% to 80%

Notes: 1. Grade of Service at trunk interface 2. With protocol converter

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Website: www.adc.com

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