

# MobileAccessGX

## Higher Power DAS Remotes 40 W

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### features and benefits |

<b>Multi-frequency/ multi-service RF transport platform</b>	Accommodates CDMA, GSM, UMTS, HSPA, LTE, EDGE, EV-DO technologies and more. Three model-dependent bands per enclosure
<b>Cost-effective higher power</b>	Optimizes and reduces the number of antennas required to cover open outdoor areas by offering 46 dBm composite power per frequency band
<b>Scalable</b>	Expandable tri-band to up to six bands
<b>MIMO support</b>	2x2 MIMO available for LTE700 and AWS bands
<b>Operator-grade operation</b>	Advanced signal handling, RF filtering and management ensures operator-grade performance
<b>Unique, space- saving, non- obtrusive design</b>	Blends into the environment and avoids costly tower builds outdoors when covering campus scenarios, parking lots, tunnels and indoor-adjacent outdoor spaces
<b>Designed to withstand harsh environments</b>	Fully sealed remote unit (RU) enclosure ensures superior performance in harsh environments and worry-free electronics maintenance. Compliant to IP65/NEMA standard
<b>Management and control</b>	Alarm forward to NOC or standard EMS via SNMP, software controlled output power and optical link auto gain control.

MobileAccessGX products offer scalable, cost-effective 40 W (46 dBm) high-power remote outdoor coverage solutions for Corning MobileAccess Distributed Antenna Systems (DAS).

MobileAccessGX is a fiber-fed, multi-frequency, multi-operator remote designed to complement the MobileAccess1000 (MA1000) and MobileAccess2000 (MA2000) lower power, standard remotes. GX can also be installed as a dedicated solution for new sites, providing complete RF coverage in large open indoor, tunnel and adjacent outdoor spaces.

Using low-loss fiber optic cabling, GX remote units can distribute multiple BTS signal sources for Cell/PCS/700 LTE or AWS to multiple remote locations between 2 to 15 km from the headend to remotes. GX efficiently supports all operator modulations with linear MCPA (multi-operator power amplifier) up to 40 W.

MobileAccessGX remotes share a common equipment headend and Element Management System (EMS) with other remotes on the MA1000/MA2000 platform. GX remotes also offer high RF power coverage capabilities with compact design for added spaces savings and weather-resistant enclosures to fit various site needs.



Radome Covered Pole Mounted GX Units  
| Figure 1

# MobileAccessGX Higher Power DAS Remotes 40 W

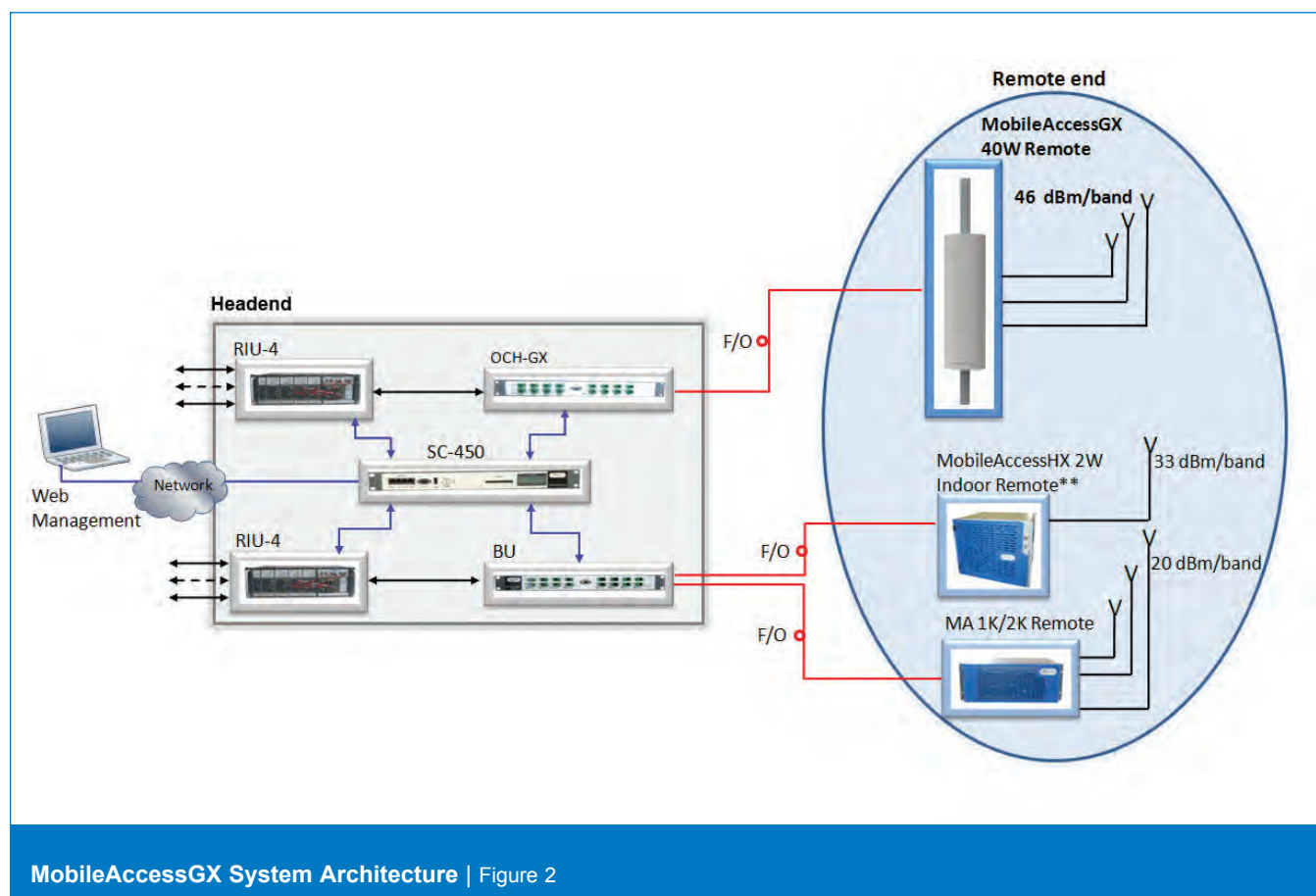
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## System Architecture

The following figure illustrates a scenario in which MobileAccessGX is installed alongside MobileAccess2000 remotes and MobileAccessHX remotes. Note that all site elements are managed and controlled via a single SC-450 Controller\* that enables local and remote management, and provides single-source, centralized 'common headend' controls of MA1000, MA2000, HX and GX elements.

For the MobileAccessGX path, at the headend, the BTS or BDA signal is conditioned by the RIU, ensuring a constant RF level. The conditioned RF electrical signal is then converted by the FT350 Solution OCH unit to an optical signal for transport to/from multiple GX remotes, over low-loss fiber cabling.

*\*MobileAccessGX is supported by SC-450 Controller v4.5.*



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### specifications |

#### Supported Services

Services	Frequency Range (MHz)		
	Band	Uplink (UL)	Downlink (DL)
CDMA/WCDMA**/TDMA/GSM	CELL850	824-849	869-894
CDMA/WCDMA**/TDMA/GSM	PCS1900	1850-1915	1930-1995
WCDMA**/HSPA/LTE	AWS2100	1710-1755	2110-2155
LTE	700 MHz	698-716 and 776-787	728-757
CDMA/LTE	S-800	817-824	862-869

(\*) WCDMA service is based on 3GPP standards. LTE service may be deployed in the future due to frequencies re-farming planned by the Operators.

#### RF Parameters per Service

LTE 700 MHz 40 W		
RF Parameter	DL	UL
<b>Max Output Power</b>		
1 Operator (Composite)	46	
2 Operators	43	
4 Operators	40	
8 Operators		
12 Operators		
24 Operators		
<b>Mean Gain (dB)<sup>1</sup></b>	68	50
<b>Gain Range (dB)</b>	30	30
<b>Pin (dBm)<sup>1</sup></b>	-20	-50
<b>Max Intermod Distortion (dBm)</b>	-13**	
<b>NF (dB) Typical</b>		5
<b>VSWR</b>		
<b>Gain Flatness/Ripple (dB)<sup>2</sup></b>		

CELL TDMA/CDMA/WCDMA 850 MHz 40 W		
RF Parameter	DL	UL
<b>Max Output Power</b>		
1 Operator (Composite)	46	
2 Operators	43	
4 Operators	40	
8 Operators	37	
12 Operators	35	
24 Operators	32	
<b>Mean Gain (dB)<sup>1</sup></b>	68	50
<b>Gain Range (dB)</b>	30	30
<b>Pin (dBm)<sup>1</sup></b>	-20	-50
<b>Max Intermod Distortion (dBm)</b>	-13*	
<b>NF (dB) Typical</b>		5
<b>VSWR</b>		
<b>Gain Flatness/Ripple (dB)<sup>2</sup></b>		

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### RF Parameters per Service

PCS CDMA/WCDMA 1900 MHz 40 W		
RF Parameter	DL	UL
<b>Max Output Power</b>		
1 Operator (Composite)	46	
2 Operators	43	
4 Operators	40	
8 Operators		
12 Operators		
24 Operators		
<b>Mean Gain (dB)<sup>1</sup></b>	68	50
<b>Gain Range (dB)</b>	30	30
<b>Pin (dBm)<sup>1</sup></b>	-20	-50
<b>Max Intermod Distortion (dBm)</b>	-13**	
<b>NF (dB) Typical</b>		5
<b>VSWR</b>	1:5:1	
<b>Gain Flatness/Ripple (dB)<sup>2</sup></b>	+/-2.0	

AWS CDMA/WCDMA 2100 MHz 40 W		
RF Parameter	DL	UL
<b>Max Output Power</b>		
1 Operator (Composite)	46	
2 Operators	43	
4 Operators	40	
8 Operators	37	
12 Operators	35	
24 Operators	32	
<b>Mean Gain (dB)<sup>1</sup></b>	68	50
<b>Gain Range (dB)</b>	30	30
<b>Pin (dBm)<sup>1</sup></b>	-20	-50
<b>Max Intermod Distortion (dBm)</b>	-13*	
<b>NF (dB) Typical</b>		5
<b>VSWR</b>		
<b>Gain Flatness/Ripple (dB)<sup>2</sup></b>		

CDMA/LTE S-800 MHz 40 W		
RF Parameter	DL	UL
<b>Max Output Power</b>		
1 Operator (Composite)	46	
2 Operators	43	
4 Operators	40	
8 Operators	37	
12 Operators	35	
24 Operators	32	
<b>Mean Gain (dB)<sup>1</sup></b>	68	50
<b>Gain Range (dB)</b>	30	30
<b>Pin (dBm)<sup>1</sup></b>	-20	-50
<b>Max Intermod Distortion (dBm)</b>	-36*	
<b>NF (dB) Typical</b>		5
<b>VSWR</b>		
<b>Gain Flatness/Ripple (dB)<sup>2</sup></b>		

\* WCDMA complies with 3GPP TS 25.106 V5.0.0 (2002-03) table 9.4 spectrum emission mask.

\*\* Out of band and spurious emissions compliant to FCC.

1) Factory set mean gain OCH-GX without RIU. May be field adjusted using controller system.

2) Gain Flatness/Ripple is specified for the non-duplexed port of the system.

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### specifications | (continued)

#### Optical - GX-40

Maximum Optical Budget	6.0 dBo
Optical Return Loss	> 50 dB
Optical Loss per Mated-pair Connectors	0.5 dB (max)
Optical Connector	SC APC
Optical Automatic Gain Control Range	-2~-10 dBm
Fiber Type	Single-mode: 9/125 $\mu$ m
Wavelength	1310 nm, 1550 nm + WDM

#### Physical Specifications - MobileAccessHX Remote Units

Ports	SC APC fiber optic waterproof connectors DIN Female connectors
Power	Remote power VAC 100-240/47-63 Hz with Max. Power Consumption: 1400 W
Physical Dimensions	<ul style="list-style-type: none"><li>• Mounting (H x W x D) in (mm): Wall or Pole 50 x 8.7 x 8.7 (1270 x 220 x 220)</li><li>• Weight lb (kg): 99.2 (45)</li></ul>
Cooling Feature	Active heat dissipation (Fan)

#### Environmental Specifications

Operating Temperature	-40 to +55°C (-40 to +131°F)
Humidity	≤ 95%
Enclosure	IP65/NEMA Enclosure protected from elements and waterproofing

# MobileAccessGX Higher Power DAS Remotes 40 W

[ordering information |](#)

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## MobileAccessGX Remote Units

Part Number	Service Supported	Description
GX-C85L70A17-40	CELL/700LTE/AWS 40 W	MobileAccessGX Tri-service CELL, AWS, and 700 MHz LTE solution supporting 40 W output power
GX-P19L70A17-40	PCS/700LTE/AWS 40 W	MobileAccessGX Tri-service PCS, AWS, and 700 MHz LTE solution supporting 40 W output power

# MobileAccessGX Higher Power DAS Remotes 40 W

notes |

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