

# 330 System

## features and benefits |

<b>Services</b>	100 MHz to 2.2 GHz band support of licensed service such as CELL, PCS, iDEN, SMR, GSM, DCS, AWS and UMTS, as well as unlicensed services such as UHF and VHF
<b>Remote locations</b>	Supports either one or two remote locations, depending on the model
<b>Base units</b>	Supports two 8-port or four 4-port base units, where the number of Base Units can be doubled using a 330 Expansion Box
<b>Intuitive GUI</b>	Enables end-to-end setup, adjustments and monitoring through local connection on either end
<b>Automatic adjustment</b>	Automatic end-to-end system adjustment for optic fiber length of up to 20 km
<b>Cost effective</b>	Eliminates the need for a controller at remote sites in which only one Base Unit is installed
<b>Flexibility and scalability</b>	For coverage in different buildings and for different powering distribution requirements
<b>Adaptable</b>	Easily adaptable to conform to requirements due to in-building capacity redesign requirements
<b>Simplicity</b>	Simple installation and configuration procedure

## RF Distribution System for Campus and Wide Area Applications

The 330 System provides a cost-effective solution for extending services over WDM F/O connections from a single BTS source to additional remote locations located within a 20 km radius.

The main market for the 330 System is campus-type installations where significant savings in operators CAPEX and OPEX are achieved by using existing F/O infrastructure to enable a single BTS to service several buildings in the campus.

The 330 System consists of the following units:

- **330 Main:** Installed at the main site, this unit performs the RF to optical conversion on the BTS side and transmits the RF services and the control signals to the remote locations where 330 Remote units are installed.
- **330 Remote:** This unit performs the optical to RF conversion at the remote locations and distributes the RF and control signals to the connected Base Units, either directly or through Corning MobileAccess controllers, depending on the installation configuration.
- **330 Expansion Box:** This is a passive RF distribution unit that enables doubling the number of Base Units supported by each 330 Remote.



330 Main Unit | Photo CMA045



330 Remote Unit | Photo CMA026

# 330 System

The 330 System provides flexible solutions for various site requirements. Figure 2 illustrates two types of installations:

## Building 1

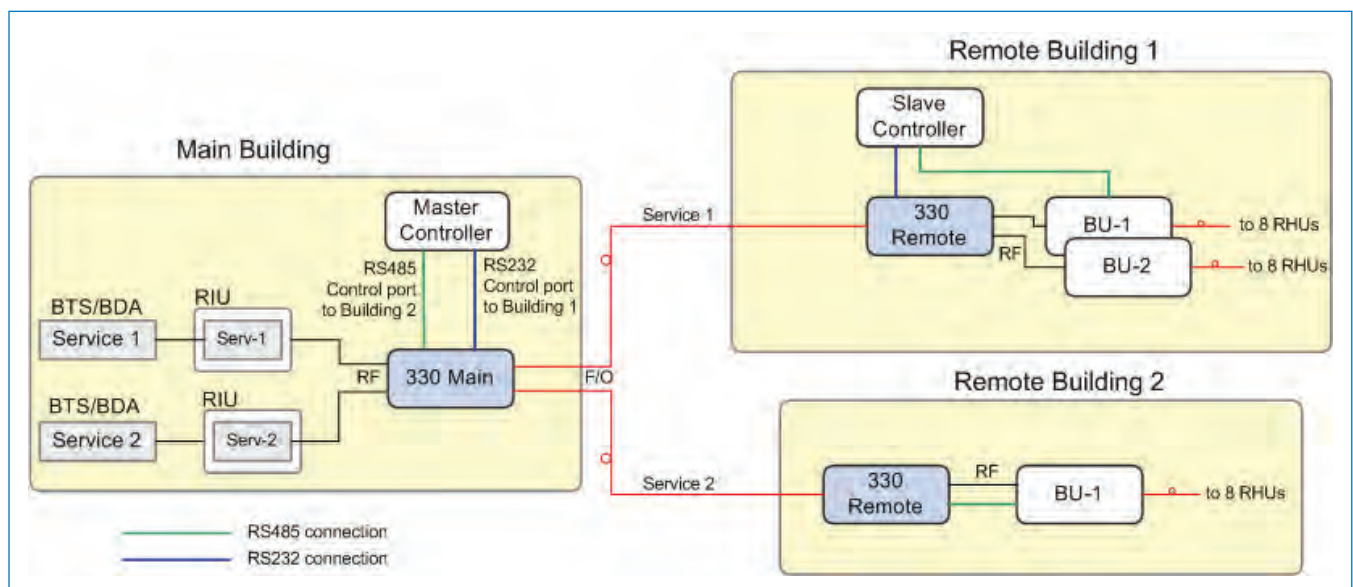
Installation in a remote location with several Base Units. For clarity, the example shows two Base Units. However, the configuration applies to a maximum of four (8-port) Base Units that are supported using a 330 Expansion Box.

### The 330 Remote unit forwards the signals as follows:

- Service signals to the base units.
- Control signals from the master System Controller at the main site to the slave controller at the remote site.  
The Base Units at the remote building are controlled through the slave controller.

## Building 2

Special installations in a remote location with a single Base Unit. The 330 Remote unit forwards both the service and the control signals from the main building directly to the Base Units. *Note: A slave controller is not required in this type of installation.*



330 System Installation Examples | Figure 2

## supported services |

Services	Frequency Range (MHz)
Licensed and Unlicensed	100-200

## RF Parameters

Downlink Parameters (At Fiber Optic Cable Run of 5 km)					
<b>Maximum Input Power (DL) to 330 Main</b>		5 dBm			
<b>IMD</b>		-35 dBm			
<b>Gain Flatness (Ripple)</b>					
<b>Frequency (MHz)</b>	100-806	806-960	960-1710	1710-1990	1990-2200
<b>Typical Gain (dB)</b>	-1	0	-1	0	0
<b>Flatness (Ripple) (dB)</b>	± 3.5	± 1.5	± 3.2	± 2.7	± 3.5

Uplink Parameters (At Fiber Optic Cable Run of 5 km)					
<b>Maximum Input Power (DL) to 330 Remote</b>		-30 dBm			
<b>IMD</b>		-35 dBm			
<b>Noise Figure</b>					
806-960 Frequency (MHz)		35			
1710-2170 Frequency (MHz)		42			
<b>IP3</b>		18 dBm			
<b>SFDR</b>		65 dB			
<b>Gain Flatness (Ripple)</b>					
<b>Frequency (MHz)</b>	100-806	806-960	960-1710	1710-1990	1990-2200
<b>Typical Gain (dB)</b>	-1	1	-1	0	0
<b>Flatness (Ripple) (dB)</b>	± 3.2	± 1.7	± 3.2	± 1.7	± 2.4

# 330 System

A Corning  
MobileAccess  
Solutions Product

## system specifications |

### Absolute Maximum Rating

Total Input RF Power to 330 Main	20 dBm
Power Supply	48 VDC

### Optical

Optical Output Power (330 Main and 330 Remote)	.5-5 mW
Maximum Optical Budget (330 Main to 330 Remote)	9 dB
Optical Loss per Mated-pair Connectors	0.5 dB (max)
Maximum Optical Back Reflection per Mated-pair Connector	-60 dB
Fiber Type	Single-mode: 9/125 $\mu$ m (Main to Remote) Corning SMF-28 <sup>®</sup> , or Compatible
Input Wavelength (25°C)	1310 $\pm$ 20 nm, 1550 $\pm$ 20 nm (WDM Combined)
Maximum Fiber Loss	0.3 dB/ km (@1550 nm) 0.38 dB/km (@1310 nm)

### Temperature

Operating	0° to +50°C (32° to 122°F)
Storage	-20° to 85°C (-4° to 185°F)

### Standards and Approvals

Safety	UL
FCC	FCC 47 Part 15
FDA/ Laser Safety	FDA/CE 21 CFR 1040.10 and 1040.11 except for deviations pursuant to laser notice no. 50 (July 26, 2001) and IEC 60825-1, Amendment 2 (January 2001)

## system specifications | (continued)

### System Components

<b>Power (330 Main and 330 Remote)</b>	<ul style="list-style-type: none"><li>• Input Power: 20-48 VDC</li><li>• Power Consumption: 20 W Max per Unit</li></ul>
<b>RF Connector Type</b>	N Type female (50Ω)
<b>Fiber Optic Connector Type</b>	SC/APC
<b>Physical Characteristics</b>	<ul style="list-style-type: none"><li>• Dimensions (H x W x D): cm (in) 4.45 x 48.26 x 29.9 (1.75 x 19 x 11.8)</li><li>• Weight: kg (lb) 330 Main-2 Links: ~2.9 (~6.39) 330 Main-1 Link: ~2.5 (~5.5) 330 Remote: ~3.36 (~7.40) 330 Expansion: ~2.5 (~5.5)</li></ul>

### Status Indicators (LEDs) on 330 Main and 330 Remote Front Panel

Indicator	Description
<b>PWR</b>	DC power status
<b>RUN</b>	Status of fiber optic adjustment procedure and unit self test
<b>LSR</b>	Laser operation
<b>Local RX Link</b>	Optical signal received from remote link
<b>Remote RX Link</b>	Optical signal received at remote link
<b>COM</b>	Communication between 330 Remote unit and 330 Main unit

# 330 System

A Corning  
MobileAccess  
Solutions Product

## ordering information |

Part Number	Description
<b>330-MB-1</b>	330 Main Unit supporting (1) link
<b>330-MB-2</b>	330 Main Unit supporting (2) links
<b>330-RB-1</b>	330 Remote Unit with (1) link supporting (2) Base Units
<b>330E-MB-1</b>	One Link Main Building Unit - 100 MHz-2.7 GHz
<b>330E-MB-2</b>	Two Link Main Building Unit - 100 MHz-2.7 GHz
<b>330E-RB-1</b>	One Link Remote Building Unit - 100 MHz-2.7 GHz
<b>330-EXP-BOX</b>	330 Expansion Unit supporting remote building monitoring Supports two additional Base Units

# 330 System

A Corning  
MobileAccess  
Solutions Product

notes |

# 330 System

A Corning  
MobileAccess  
Solutions Product

notes |

Corning MobileAccess, Inc. • 8391 Old Courthouse Road, Suite 300 • Vienna, Virginia 22182 USA  
866-436-9266 • FAX: 703-848-0280 • Tech Support Hotline: 410-553-2086 or 800-787-1266 • [www.corning.com/mobileaccess](http://www.corning.com/mobileaccess)

Corning MobileAccess reserves the right to improve, enhance and modify the features and specifications of Corning MobileAccess products without prior notification. SMF-28 is a registered trademark of Corning Incorporated. All other trademarks are the properties of their respective owners. Corning MobileAccess is ISO 9001 certified. © 2011, 2012 Corning MobileAccess. All rights reserved. Published in the USA. CMA-189-AEN / July 2012

**DS\_330 System\_23JUN10**