

# Base Station BS320-N64 MIMO

802.11n 2x2 MIMO Base Station with N-type antenna connectors.

BS320-N64 MIMO are designed for high-density deployments requiring maximum capacity.

The Base Station is a Carrier Grade class 802.11n Outdoor Base Station designed for high density deployments that emphasize throughput capacity over coverage including those supporting VoIP and High Speed Internet.

## Connectivity and Power Options

The Base Station features one 10/100/1000 Ethernet port operating in auto-negotiation mode in order to seamlessly adapt to the Ethernet infrastructure.

## Scalability

As part of the RCS Management System, the Base Station has full support of the RCS features including, bandwidth control, firewall, traffic storage in database, remote Repeatit SU management and many more.

## Easy Installation

The Base Station ships with a flexible mounting kit designed for pole-mounted, and wall-mounted deployment. The Base Station follows the Repeatit tradition of easy installation. Centralized management limits the configuration of the BS to only network settings.

## Technical specification

<b>BS320-N64</b>	
<b>Radio</b>	
Type	Single radio
Frequency Bands	5.925–6.425 GHz
Channel widths supported	5/10/20/40 MHz
Capacity	max. 200 Mbps/40 MHz channel
Encryption	64 and 128 bit WEP encryption, WPA , WPA2 with TKIP or CCMP/AES Chiper
QoS	Four Access Categories (AC) Voice, Video, Best Effort, and Background Traffic classification according to WMM
<b>External Antenna</b>	
Connector	2 x N-female (2x2 MIMO)
<b>Ethernet Interface</b>	
Type	10/100/1000 BaseT Interface with Auto-negotiation (IEEE 802.3)
Number of Ethernet Ports	1
Framing/Coding	IEEE 802.3u
Traffic Handling	MAC layer bridging, self learning, 802.1q transparent
VLAN ID for Management	Supported
Power over Ethernet	PoE 802.3af or 24–48 V DC passive injector, <6W typical
Connector	RJ-45
<b>Management</b>	
Management	Web interface
Protocol	SNMP
NMS Application	RCS (Repeatit NMS)
Tools in web interface	Spectrum Analyser
<b>Environment</b>	
IP Code	IP67
Temperature	-40° / +60° C
Size	370 x 370 x 40 mm
Weight per unit	2.1 kg
<b>Carrier Grade – N64</b>	
<b>Radio</b>	
Speed	up to 130 Mbps physical data rates/20 Mhz channel
Frequency Bands	5,925–6,425 GHz
Modulation Techniques	OFDM: BPSK, QPSK, 16-QAM, 64-QAM
Surge Protection	±15kV, Internal DC-Grounding

Modulation Scheme	Bitrate [MBit/s] (Channel 20 MHz, 1/2 spatial streams)	Output Power [dBm] (+- 2 dBm)	Receiver Sensitivity [dBm] (+- 2 dBm)
MCS0/MCS8	6,5/13	25	-89
MCS1/MCS9	13/26	25	-86
MCS2/MCS10	19,5/38	25	-84
MCS3/MCS11	26/52	25	-79
MCS4/MCS12	39/78	24	-76
MCS5/MCS13	52/104	23	-72
MCS6/MCS14	58,5/117	21	-71
MCS7/MCS15	65/130	18	-69

## Product Highlights

- 200 Mbps radio speed
- 2x2 MIMO
- 10/100/1000 Ethernet port
- Supporting 5, 10, 20 and 40 MHz channel widths
- Build-in RF ESD/Surge protection up to 15 kV
- Stainless steel and aluminium casing



## Functional specification

### Base Station

- Level 2-switch
- Native VLAN
- 64 and 128 bit WEP encryption, WPA , WPA2 with TKIP or CCMP/AES Chiper.
- Advanced spectrum analyser
- QoS: Four traffic classes prioritise traffic

### Base Station

#### with RCS Management Software

- Firewall functionality
- Bandwidth management
- Multi SSID
- Mac based VLAN according to the standard 802.1Q
- Centralized MAC-address filtering
- Enhanced Subscriber information
- Centralized database for radio traffic history

# Subscriber Unit SU116-N64 MIMO

802.11n 2x2 MIMO Subscriber Unit is designed for high-density deployments requiring maximum capacity.

The SU116-64 MIMO is an Carrier Grade class 802.11n Outdoor Subscriber Unit designed for high density deployments that emphasize throughput capacity over coverage including those supporting VoIP and High Speed Internet.

## Connectivity and Power Options

The SU116-N64 MIMO features one 10/100 Ethernet port operating in auto-negotiation mode in order to seamlessly adapt to the Ethernet infrastructure.

## Scalability

As part of the RCS Management System, the SU116-N64 MIMO has full support of the RCS features including, bandwidth control, traffic storage in database, remote Repeatit SU management and many more.

## Easy Installation

The SU116-N64 MIMO is shipped with a flexible mounting kit designed for pole-mounted, and wallmounted deployment. The units follow the Repeatit tradition of easy installation.

## Technical specification

SU116-N64 MIMO	
<b>Radio</b>	
Frequency Bands	5.925–6.425 GHz
Protocol	802.11an
Channel widths supported	5/10/20/40 MHz
Capacity	100 Mbps
Modulation	OFDM: PSK/QPSK/16QAM/64QAM
Max Tx Power	23 dBm
Max Rx sensitivity	-97 dBm
Error Correction	FEC; k=1/2,2/3,3/4, 5/6
Encryption	64 and 128 bit WEP encryption, WPA, WPA2 with TKIP or CCMP/AES Chiper
Surge Protection	15kV
Antenna Protection	Internal DC Grounding
DFS	Yes
QoS	Four Access Categories (AC) Voice, Video, Best Effort, and Background. Traffic classification according to WMM
<b>Antenna</b>	
Type	Internal Antenna
Gain	typ. 16 dBi
VSWR	max. 1.5:1
3 dB Beam-Width, H-Plane	typ. 17°
3 dB Beam-Width, V-Plane	typ. 17°
Polarization	Horizontal and Vertical
Antenna Cable	N/A
Connector	N/A
<b>Ethernet Interface</b>	
Type	10/100BaseT Interface with Auto-negotiation (IEEE 802.3)
Number of Ethernet Ports	1
Framing/Coding	IEEE 802.3u
Traffic Handling	MAC layer bridging, self-learning 802.1q transparent
VLAN ID for Management	Supported
Power over Ethernet	PoE 802.3af or 24–48 V DC passive injector, <6W typical
Connector	RJ-45
<b>Management</b>	
Management	Web interface
NMS Application	RCS (Repeatit NMS)
Tools in web interface	Spectrum Analyser
<b>Environment</b>	
IP Code	IP63
Temperature	-40° / +60° C
Size	250 × 210 × 80 mm
Weight per unit	1.1 kg

## Product Highlights

- 130 Mbps radio speed, 100 Mbps aggregated net throughput
- 10/100 BaseT Ethernet port
- Supporting 5, 10, 20 and 40 MHz channel widths
- Build-in RF ESD/Surge protection up to 15 kV
- Security: 64 and 128 bit WEP encryption, WPA, WPA2 with TKIP or CCMP/AES Chiper



## Functional specification

### Subscriber Unit

- NAT router and transparent bridge modes
- VLAN, in routing mode tagging and untagging of one VLAN. In bridge mode 100% transparent.
- Mgmt IP address, supports unique mgmt IP for Network owner.
- Advanced spectrum analyser
- QoS: Four traffic classes prioritise traffic

### Subscriber Unit with RCS Management Software

- Bandwidth management
- Traffic storage in database
- Remote Repeatit SU management

# Subscriber Unit SU100-N64 MIMO

802.11n 2x2 MIMO Subscriber Unit is designed for high-density deployments requiring maximum capacity.

The SU100-N64 MIMO Series is an Carrier Grade class 802.11n Outdoor Subscriber Unit designed for high density deployments that emphasize throughput capacity over coverage including those supporting VoIP and High Speed Internet.

## Connectivity and Power Options

The SU100-N64 MIMO features one 10/100 Ethernet port operating in auto-negotiation mode in order to seamlessly adapt to the Ethernet infrastructure.

## Scalability

As part of the RCS Management System, the SU100-N64 MIMO has full support of the RCS features including, bandwidth control, traffic storage in database, remote Repeatit SU management and many more.

## Easy Installation

The SU100-N64 MIMO is shipped with a flexible mounting kit designed for polemounted, and wallmounted deployment. The units follow the Repeatit tradition of easy installation.

## Technical specification

SU100-N64 MIMO	
<b>Radio</b>	
Frequency Bands	5.925–6.425 GHz
Channel widths supported	5/10/20/40 MHz
Capacity	100 Mbps
Modulation	OFDM: PSK/QPSK/16QAM/64QAM
Max Tx Power	25 dBm
Max Rx sensitivity	-96 dBm
Error Correction	FEC; k=1/2,2/3,3/4, 5/6
Encryption	64 and 128 bit WEP encryption, WPA, WPA2 with TKIP or CCMP/AES Chiper
Surge Protection	15kV
Antenna Protection	Internal DC Grounding
QoS	Four Access Categories (AC) Voice, Video, Best Effort, and Background. Traffic classification according to WMM
<b>Antenna</b>	
Type	External Antenna
Connector	N female
<b>Ethernet Interface</b>	
Type	10/100BaseT Interface with Auto-negotiation (IEEE 802.3)
Number of Ethernet Ports	1
Framing/Coding	IEEE 802.3u
Traffic Handling	MAC layer bridging, self-learning 802.1q transparent
VLAN ID for Management	Supported
Power over Ethernet	PoE 802.3af or 24–48 V DC passive injector, <6W typical
Connector	RJ-45
<b>Management</b>	
Management	Web interface
NMS Application	RCS (Repeatit NMS)
Tools in web interface	Spectrum Analyser
<b>Environment</b>	
IP Code	IP67
Temperature	-40° / +60° C
Size	284 × 174 × 81 mm
Weight per unit	2.1 kg

## Product Highlights

- 130 Mbps radio speed, 100Mbps aggregated net throughput
- 10/100 BaseT Ethernet port
- Supporting 5, 10, 20 and 40 MHz channel widths
- Build-in RF ESD/Surge protection up to 15 kV
- Security: 64 and 128 bit WEP encryption, WPA, WPA2 with TKIP or CCMP/AES Chiper



## Functional specification

### Subscriber Unit

- NAT router and transparent bridge modes
- VLAN, in routing mode tagging and untagging of one VLAN. In bridge mode 100% transparent.
- Mgmt IP address, supports unique mgmt IP for Network owner.
- Advanced spectrum analyser
- QoS: Four traffic classes prioritise traffic

### Subscriber Unit with RCS Management Software

- Bandwidth management
- Traffic storage in database
- Remote Repeatit SU management



Simplify complexity

# Dual Polarization Subscriber Antenna

Broadband Medium Gain Antenna covers newly approved 5.7-6.425 GHz band.

## Technical specification

<b>Electrical</b>		
Frequency Bands	5.7–6.425 GHz	
GAIN (without cable)	19 ± 1 dBi	
VSWR, max.	1.7 : 1	
Polarization	Dual Pole	Linear, Vertical & Horizontal
	Dual Slant (opt.)	±45° (diamond shape)
3 dB Beam-Width, Az-Plane, typ.	16°	
3 dB Beam-Width, El-Plane, typ.	16°	
Side Lobes, min.	-12 dB	
Cross Polarization, min.	-16 dB (-20 dB typ.)	
Port to Port Isolation, min.	-25 dB (-30 dB typ.)	
Front to Back Ratio, min.	-30 dB	
Input power, max.	10 Watt	
Input Impedance	50 Ohm	
Lightning Protection	DC Grounded	
<b>Mechanical</b>		
Dimensions (HxWxD)	202 x 202 x 33 mm	
Connector	2 x N-Type Female	
Weight	380 g	
Radome	UV Protected Polycarbonate	
Water Proofing	IP-67	
<b>Environmental</b>		
Temperature	-55° / +65° C	
Vibration	According to IEC 60721-3-4	
Wind Load	200 km/h (survival)	
Flammability	UL94	
Humidity	ETS 300 019-1-4, EN 302 085 (Annex A.1.1)	
Salt Fog	According to IEC 68-2-11	

## Product Highlights

- Exceptionally high gain.
- Light weight and durable construction.
- DC grounded for lightning protection.
- Easy mounting allowing Az/El adjustment.
- UV protected radome suitable for harsh environment installations



# Base Station Antenna, 90°

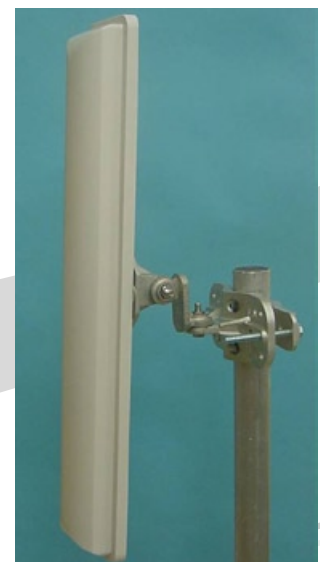
Broadband Sector Antenna provides a cost effective solution for large scale WLL, WLAN, H-LAN, ISM, UNII, Public Safety, Municipal MESH

## Technical specification

<b>Electrical</b>	
Frequency Bands	5.7–6.5 GHz
GAIN (without cable)	17 ± 1 dBi
VSWR, max.	1.7 : 1
Polarization	Linear, Vertical
3 dB Beam-Width, H-Plane, typ.	90°
3 dB Beam-Width, E-Plane, typ.	8°
Side Lobes, min.	ETSI EN 302 085 V1.2.3 – CS1
Cross Polarization, min.	ETSI EN 302 085 V1.2.3 – CS1
Front to Back Ratio, min.	ETSI EN 302 085 V1.2.3 – CS1
Input power, max.	50 Watt
Input Impedance	50 Ohm
Lightning Protection	DC Grounded
<b>Mechanical</b>	
Dimensions (HxWxD)	573 x 95 x 53 mm
Connector	2 x N-Type Female
Weight	700 g
Back Plane	Aluminum protected through chemical passivation
Radome	UV Protected Polycarbonate
Water Proofing	IP-67
<b>Environmental</b>	
Temperature	-40° / +65° C
Vibration	According to IEC 60721-3-4
Wind Load	200 km/h (survival)
Flammability	UL94
Humidity	ETS 300 019-1-4, EN 302 085 (Annex A.1.1)
Salt Fog	According to IEC 68-2-11
Ice and Snow	25mm radial (survival)

## Product Highlights

- Stable performance with 17 dBi of gain.
- Small size allowing easy blending with any environment.
- Tilt mount allowing quick and easy installation.
- UV protected radome suitable for harsh environment installations.



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