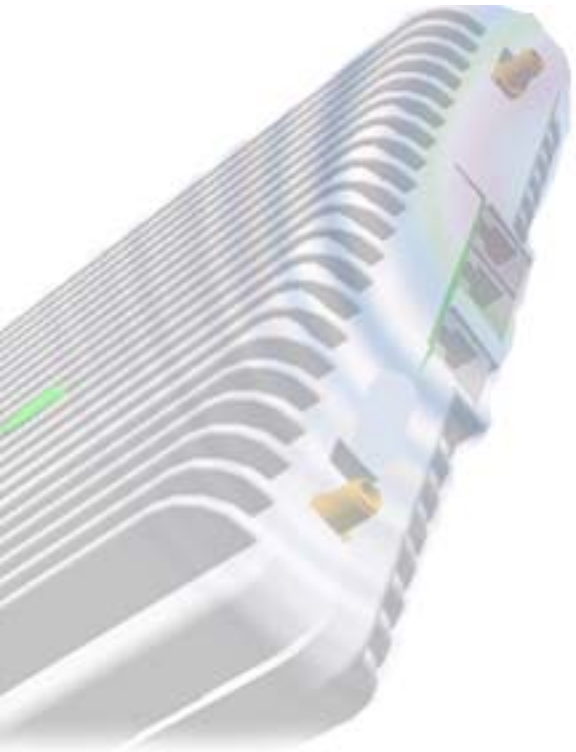


GSM nanoCELL

The ***nanoCELL*** is a miniature GSM base station that establishes cell phone service wherever coverage or capacity are needed. Installation is fast and easy. Simply plug the ***nanoCELL*** into power, connect the base station to a laptop PC and the network is ready to talk.

The ***nanoCELL*** is the most cost effective cell phone node available today.

The design combines a small form factor, with low power consumption to enable installation in a wide range of environments. The ***nanoCELL*** can be mounted on the wall, in a vehicle, in a briefcase or in a weatherproof outdoor enclosure.

The ***nanoCELL*** is an FCC approved device and can be integrated with Internet Protocol (IP) switches, Public Switched Telephone Networks (PSTN) or satellite transmission systems.

The ***nanoCELL*** includes Network Management Software with tremendous flexibility. Network Management controls determine which GSM cell phone users are "seen or not seen" by the base station. The Network Management Software can also be configured to "emulate" local GSM carriers.

While there is no limit to the number of users that can be allowed on the ***nanoCELL***, up to 7 voice handsets may access the network at one time.

For greater coverage or capacity, multiple distributed ***nanoCELL*** base stations can be linked together using standard Ethernet cables.

The ***nanoCELL*** base station requires 2 external antennas for an effective range of approximately 500 feet. Actual range will be determined by antenna gain, terrestrial obstructions, building materials, etc.

RIVA Networks Inc. (RIVA) can provide custom hardware packaging and unique software configurations for customer specific applications.

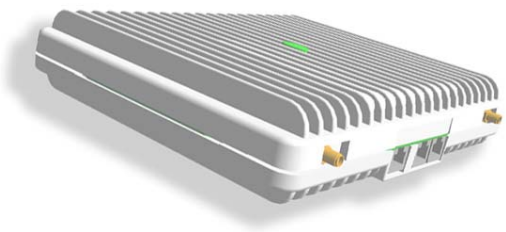
Classified manufacturing and software programming resources are available as required.

features

- Rapid Installation
- Simple Operation
- In building coverage 400 to 1,000 feet
- Outdoor coverage 1,000 to 1,500 feet (with 40' antenna)
- Supports 1800 or 1900 GSM band
- Low power consumption
- GPRS data ready
- Single 10/100 Ethernet connection (power, traffic and signaling)
- Smallest footprint in the industry
- Lowest price in the industry

applications

- Private voice and data networks
- Portable voice and data networks
- Operate independent from Public Networks in emergency situations



GSM nanoCELL

technical specifications

radio interface

Transmit Frequencies

GSM 1800:	1805 to 1880 MHz
GSM 1900:	1930 to 1990 MHz
Channel spacing:	200 kHz
Max. output power:	0.2 watts +23 dBm
Static power control:	12 steps

Receive Frequencies

GSM 1800:	1710 to 1785 MHz
GSM 1900:	1850 to 1910 MHz
Channel spacing:	200 kHz
Performance:	GSM 05:05
Gain control steps:	26

Antenna Connections

Two SMA type connectors for external antenna connections.

Channel Support

Single Transceiver with 8 timeslots (TS0..7).
Single static RF control channel.

Speech Format Support

Full Rate and Enhanced Full Rate

Encryption Support

A5/1 A5/2

software services

Signaling and Traffic

A-bis:	Abis/IP
Signaling, O&M:	TCP/IP
Traffic:	RTP/UDP/IP

Circuit Switched Data

Single slot BS20 at up to 14.4kb/s
BS21-26, plus BS61, BS81

physical

Electrical Interface

Single RJ45 auto-select 10/100 Ethernet supporting Power-over-Ethernet.
Timing Interface Bus (TIB) interconnect for multiple Transceiver networks.

Dimensions and Weight

Height:	8”	(210mm)
Width:	11”	(280mm)
Depth:	3”	(77mm)
Weight:	6 lbs	(2.7kg)

Power

Power consumption:	13W
Input supply:	38 - 50 Volt DC

Operational

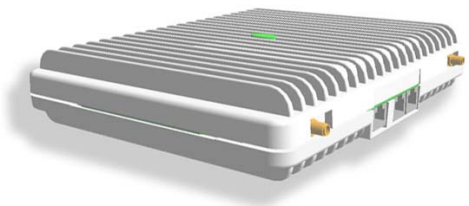
Temperature:	23°F to + 113°F ambient
Humidity:	5 - 90% non-condensing

Storage

Temperature:	14°F to + 200°F ambient
Humidity:	5 - 90% non-condensing

standards

ETS 300-019-1-1 Storage Class 1.1
ETS 300-019-1-2 Transport Class 2.3
ETS 300-019-1-3 Operation Class 3.1



RIVA networks
Encryption
Secure Voice & Data
Secure Networks
Information Assurance
Homeland Security
Biometric Authentication
(732) 940-5555
www.riva-networks.com