The iCell® QuadPAC IP-RAN is a flexible 1RU rackmount CDMA2000® (3G) base station capable of multiple deployment configurations within a single rackmount form factor. This rackmount unit consists of a base configuration with either 1X or EVDO BTS module and additional optional modules depending on the deployment scenario. These additional modules include network functions such as the BSC, RNC, PDSN as well as the Star Solutions Wireless Call Manager.

The iCell® QuadPAC IP-RAN is ideal for in-building wireless coverage applications deployed over an existing CDMA2000® network, and for broadband network underlay applications that can provide an existing EV-DO macro network additional bandwidth capacity in heavy data-use areas such as office buildings and hotspots. With a built-in BSC or RNC function, this unit can be deployed over satellite IP backhaul allowing it to be an excellent communications tool in marine, off-shore, remote and rural applications.

The iCell® QuadPAC can be integrated into a core network using IP based network interfaces. Additional optional modules within the shelf enable other deployment scenarios. These additional modules include:

- CPU Module -- For internal RNC, PDSN or Call Manager functions
- GPS Module -- To provide a frequency reference 1PPS signal via GPS antenna
- Clock Module -- To provide a stand-alone frequency reference if a GPS signal is not readily available

**CUSTOMER APPLICATIONS**

- In-building coverage and capacity enhancement
- Lab system and test & verification environment
- Marine, off-shore, on-board CDMA coverage networks
- Portable or transit case based networks for rapid deployment
- Enterprise or Private User Group networks
## Technical Specifications

### Capacity/Performance
- **RF Configuration**: 1FA/1S
- **RF Output Power**: Up to 50mW
- **Channel Elements**: 64 Channel Elements
- **CDMA Technology**: 1X RTT or EV-DO Rev B
- **Packet Data Rates (Peak Burst)**: 1X peak data rates: 153.6 Kbps Fwd/153.6 Kbps Rev
  - EV-DO Rev A peak data rates: 3.1 Mbps Fwd/1.8 Mbps Rev
  - EV-DO Rev B peak data rates: 4.9 Mbps Fwd/1.8 Mbps Rev

### Frequency Bands
- **Band Class 0**: Tx: 869–894 MHz | Rx: 824–849 MHz
- **Band Class 1**: Tx: 1930–1990 MHz | Rx: 1850–1910 MHz
- **Band Class 5, Block A**: Tx: 462.5–467.5 MHz | Rx: 452.5–457.5 MHz

### Protocol Support
- **BTS/BSC/RNC Interface Signaling**: IP based Abis, A10, A11, A13
- **Voice Traffic Protocol Support**: IOS/IP, RTP/IP, MGCP
- **Packet Data**: GRE/IP
- **O&M Interface**: SNMP v2c

### Interfaces
- **Antenna Connectors**: SMA, female, two connectors (Tx & Rx)
- **Ethernet**: 1000BASE-T (RJ-45)
- **Timing Source**: GPS module based 1PPS or oscillator based clock

### Hardware
- **Dimensions**: 1.75 in. H x 15 in. W x 20 in. D
- **Nominal Input Voltage**: ANSI standard CB4.1 / CAN3-235 European 120V (+10, 10%) at 60 Hz
  - 230V (+6, 10%) at 50 Hz
- **Power Consumption**: 100W (in typical operating conditions)
- **Optional Modules**: CPU Module, Clock Module