

Maingate™ C&I S4 Underglass

3G Cellular AMR Solutions

ROBUST SOLUTION FOR ALL AMR PROGRAMS:

CIRCUIT-SWITCHED 2G NETWORKS WORK WITH EXISTING MASTERS

PACKET-SWITCHED 3G NETWORKS FEATURE LOWEST SERVICE COSTS AND BEST PERFORMANCE

OVER-THE-AIR UPGRADES ALLOW 2G TO 3G EVOLUTION WITHOUT A SITE VISIT

Key Features

- CDMA 1xRTT or GSM/GPRS Networks
- Circuit or Packet-Switched Operation
- Internet Protocol (IP) in the Packet Assembly/Disassembly (PAD) Mode or the Advanced UCA/MMS Mode
- Internet Protocol using Fixed or Dynamic IP Address
- Over-the-air Transitions to Different Network Modes
- Advanced Power Quality Functions
- Complete Range of Installation Options Available Including External aAntennas, RF Attenuators, and Directional Antennas
- Reduced Communications Charges
- Over-the-air Patches Respond to Changes in Network Operation
- Watchdog Timer
- Full support for all S4 features

Proven Technology - Underglass

The Maingate™ S4 combines the CDMA Gateway proven in the largest digital cellular AMR system in the US with the most popular polyphase meter in the US in one tightly integrated package.

The Maingate™ S4 offers multiple modes of operation for compatibility with existing master station software, offering a robust array of configurations. The S4 is also extremely fast and reliable: when operated in the most advanced mode, Maingate™ S4's enable reading over 100 meters per second with a daily read success rate of over 99%.

Cost Effective Solution

The Maingate™ S4 offers the lowest operational cost of any meter. Plug and play installation, automatic database population and an extensive set of gateway displays that use the S4 LCD all contribute to quick and easy installation. Extensive over-the-air diagnostics and monitoring many anomalies can be resolved without a site visit.

Additional savings can be achieved utilizing the MMS Mode which uses a compressed version of the ANSI C12.19 table structure along with the MMS Protocol recommended by the EPRI Utility Communication Architecture initiative for all machine-to-machine communication. This protocol requires less than 15% of the raw data to transmit a given amount of data, resulting in air-time cost savings of up to 50%.



THE LARGEST AMR SYSTEM!

MAINGATE IS USED EXCLUSIVELY IN THE LARGEST 3G C&I AMR SYSTEM IN THE WORLD.

Meter Specifications

	FORM	CLASS	VOLTAGE		FORM	CLASS	VOLTAGE
Transformer-Rated:	9S/8S	20	120 to 480 ranging*	Self-Contained:	25S	200	120 to 480 ranging*
(S-Base)	29S	20	120 to 480 ranging*	(S-Base, cont.)	12SE	320	120 to 480 ranging*
	36S	20	120 to 480 ranging*		16SE/15SE	320	120 to 480 ranging*
	5S	20	120 to 480 ranging*	Self-Contained:	12K	480	120 to 480 ranging*
	56S	20	120 to 480 ranging*	(K-Base)	16K/15K	480	120 to 480 ranging*
Transformer-Rated:	10A/8A	20	120 to 480 ranging*		27K	480	120 to 480 ranging*
(A-Base)	36A	20	120 to 480 ranging*	Self-Contained:	16A/15A	120	120 to 480 ranging*
	45A	20	120 to 480 ranging*	(A-Base)			
Self-Contained	12S	200	120 to 480 ranging*	Residential Meters	2S	200	120 to 480 ranging*
(S-Base)	16S/15S	200	120 to 480 ranging*	(S-Base)	2SE	20	120 to 480 ranging*
					3S	20	120 or 240

*Line-to-neutral should be no more than 277 Volts

Functional Specifications

Local Interface: LCD Displays, Optical Port and Error LED on Gateway

Performance: Profile read time ranges from 100 reads per second (MMS Mode) to 4 minutes per read (Circuit-Switched Mode)

Wireless Interface: CDMA IS-95 or 1xRTT, 800 MHz & 1.9 GHz Circuit switched, IP-PAD or IP-MMS modes

Meter/Gateway Interface: Serial for all data, with memory-mapped tables for display and optical port interfaces

Outage Detection: Power Backup via SuperCaps for last gasp message sent at a user-programmable time after outage (up to two minutes)

Technical Specifications

Power: Input 120 – 277 VAC input

Installation: Plug-and-play commissioning, 4 signal strength LEDs plus 3 commissioning sequence LEDs, Ping LED (MMS Mode only)

Performance: Profile read time ranges from 100 reads per second (MMS Mode) to 4 minutes per read (Circuit-Switched Mode)

Mechanical: 6.5”L x 5”W x 11”H, 4.5 lbs

Wireless Interface: CDMA 1xRTT, 800 MHz & 1.9 GHz GSM/GPRS, 850 MHz & 1.9 GHz, Circuit switched, IP-PAD or IP-MMS modes, Optional external antennas, including high-gain.

Meter Interface: RS-232 or RS-485, optional Multiplexer supports 4 circuits/meters

Regulatory: FCC part 15, ANSI C37.90.1 Surge on all I/O, UL 916

Environmental: -40 to 60°C, 0% to 95% Humidity (non-condensing)

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