



Antennas

DATA SHEET

Site Control Unit

SCU-AISG2-3



CCI's AISG 2.0 Site Control Unit (SCU) is part of our suite of antenna products. This controller will enable operation of any AISG 2.0 device such as TMA's or Remote Electrical Tilt (RET) controlled antennas. The antennas RET function enables optimization (tilts) of the sector coverage pattern. The SCU can interface with the RET's via placement of Bias-T's at Ground Level and Tower Top, or Bias-T's at Ground Level and AISG Compliant TMA's at the Tower Top. When this method is utilized no additional home runs are required as the AISG + DC is present on the RF Coax Feed Line. If required the SCU can directly control the RET's with a home run and daisy chaining of the remaining RET's. Continuous adjustment capability allows changes to the BTS coverage to suit network optimization, changing traffic patterns or seasonal changes such as foliage absorption. Variable Gain AISG 2.0 TMA's can be remotely adjusted to any value within their specified range in 0.25 dB steps via coax. The SCU can be controlled via an Ethernet port.

Technical Description

The Site Control Unit (SCU) when paired with remote actuators from CCI allows a retrofit to existing Manual Tilt Antennas. The unit provides three RS485 fully AISG and 3GPP compliant control outputs. The SCU is controlled via an Ethernet RJ45 jack.

The SCU when used in conjunction with CCI Remote Electrical Tilt Actuators (RET's) seamlessly integrates with the carriers existing BTS equipment to achieve the desired performance results. The SCU can feed a maximum of 450 feet and can be daisy chained to up to 24 individual RET's (can be software upgraded to accommodate 32 RET's).

The Site Control Unit is designed for Indoor rack mount environments and runs off 24VDC. The unit is fully lightning protected.

Use of AISG Compliant Bias-T's designed to combine the DC bias and the AISG 2.0 compliant communication link provided by the "Site Control Unit" with the RF signal from the BTS onto the center conductor of the feeder line allows for control of AISG compliant TMA's. The AISG compliant TMA's in turn have AISG connectors which can be used to connect cables to control AISG compliant Remote Electrical Tilt Actuators. Brackets for 19" Rack or Wall mounting are supplied with the SCU.



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SPECIFICATIONS

Site Control Unit

SCU-AISG2-3

Electrical Specifications

Input Voltage	+24 VDC
Supply Current nominal @ +24 VDC	≤ 1.2 A DC
Primary Inrush current	≤ 2.0 A DC
Input Fuse Size	4 A (fast blow)
Output Voltage	+12 VDC or +24 VDC (User Selected)
Output Current	3.5 A total
Max number of AISG devices	24 (32 future units via firmware upgrade)
Summary Alarm Relay Dry Contact Rating	10A @ 120VAC/28VDC
User Interface	HTML through Ethernet Port; AISG 1.1, 2.0 compatible
Interface to AISG Equipment	RS 485

Indicators

Power Status Indicator	GREEN LED
Alarm Indicator	RED LED
Run Indicator	YELLOW LED

Mechanical

AISG Connector	Female 8 pin circular conn. per IEC60130-9 Ed. 3.0 w/screw ring locking
Number of AISG Ports	3
LAN Connectors	1 x Ethernet (RJ-45)
High Speed Serial Data Connector	USB 2.0 × 1
RS-232 (Serial) Connector	RS-232C
Alarm Connector	5 Pin "Removable" Terminal Block
DC Input Connector	3 Pin "Removable" Terminal Block (2 Usable Pins)
Dimensions (LxHxD)(Without Brackets)	8.66x1.75x7.3 in.(220x44.4x185 mm)
Bracket for 19" Rack Mtg. / Wall Mtg.	Included / Included
Weight	3.5 lbs. (1.5 kg)

Environmental

Temperature range	0° to +140°F (0° to +60°C)
Protection Class	IP20 Minimum



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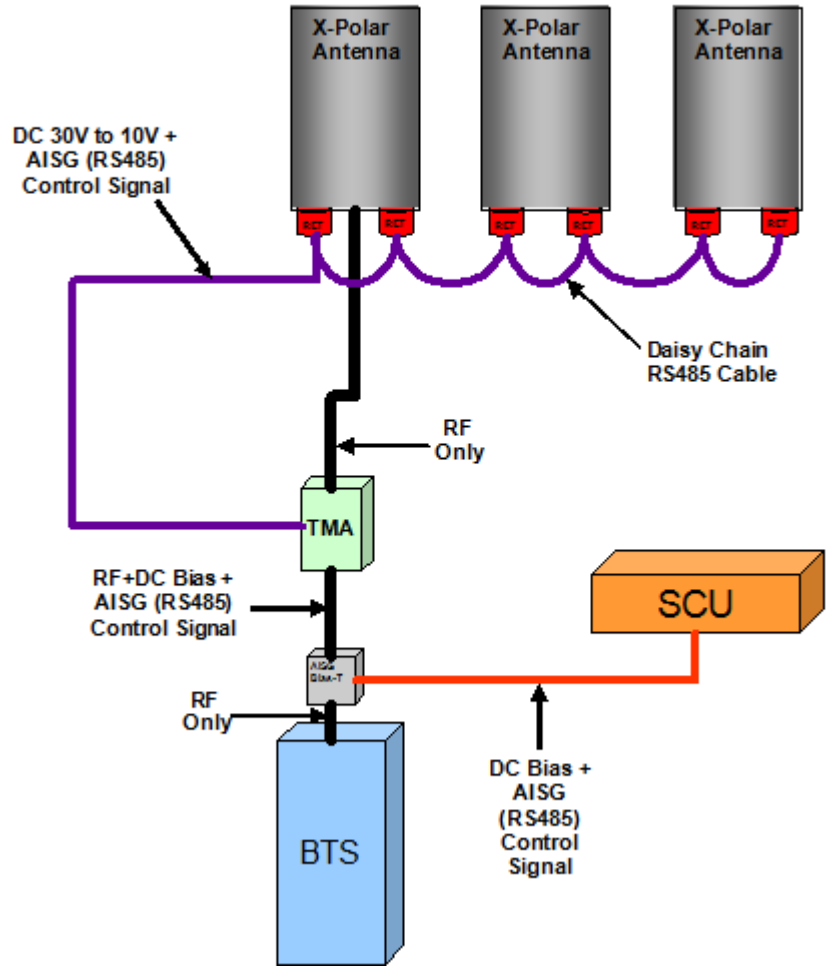
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Block Diagram

AISG 2.0 SCU Example Application



Dry Contact Relay Pin Assignment

"Removable Terminal Block" Label	Function
IN	N/A
O1	Normally Closed
O2	Normally Open
O3	Common
GND	N/A



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ORDERING

Site Control Unit

SCU-AISG2-3

Parts & Accessories

Part Number SCU-AISG2-3

Overall Weight 3.5 lbs (1.5 kg)



Antennas

STANDARDS &
CERTIFICATIONS

Site Control Unit

SCU-AISG2-3

Certifications

Antenna Interface Standards Group (AISG), Federal Communication Commission (FCC) Part 15 Class B, CE, CSA US

