

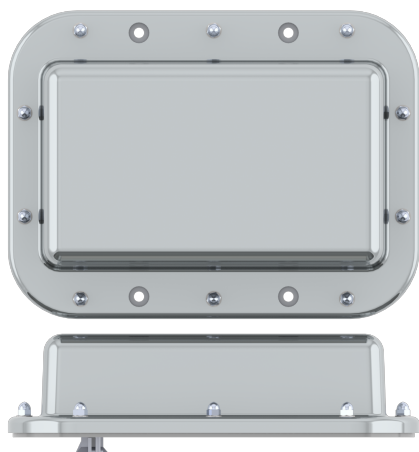


# Antennas

## DATA SHEET

### Internal Remote Electrical Tilt (iRET)

BSA-RET400



- Rugged, weather resistant and highly reliable internal design
- Eliminates external AISG cables between RET's
- Provides all the benefits of internal RET's plus the ability to replace RET's without replacing the antenna
- AISG 2.0/3GPP Protocol
- RS-485 Interface
- Software upgradeable
- AISG Type 17 supported
- Interoperability Tested with all leading BTS Manufacturers

#### Overview

The Internal Remote Electrical Tilt (iRET) Actuator is part of Communication Component Inc.'s complete iRET System. The iRET Actuator enables optimization on a continuous basis of the sector coverage pattern. It provides an RS485 control interface which is AISG 2.0 compatible. The iRET Actuator when used with a Site Control Unit (SCU) or an AISG Compliant BTS enables remote fine tuning of the Site footprint without requiring a tower climb. The continuous adjustment capability allows changes to the antenna downtilt pattern to suit network optimization, changing traffic patterns or seasonal changes such as foliage absorption.

The Internal Remote Electrical Tilt (iRET) Actuator from CCI consists of an RS485 control interface driving a DC motor with an encoder, which connects to the existing antenna phase shifter that controls downtilt of the antenna pattern. CCI's iRET activator connects internally to an AISG bus within the antenna, this eliminates all external AISG cable interconnects and improves reliability. Yet, unlike conventional internal RETs, CCI's iRET provides the ability to replace failed actuators without replacing the antenna. The iRET Actuator when used in conjunction with a Site Control Unit (SCU) or an AISG Compliant BTS seamlessly integrates with the carriers existing BTS equipment to achieve the desired performance results. The Internal Remote Electrical Tilt Actuator is designed for outdoor environments and operates between +10 to +30V. CCI's iRET Actuator is interoperable with all leading BTS Manufacturers including Alcatel-Lucent, Ericsson, Huawei, Nokia Siemens and others.

CCI RET's are designed and produced to ISO 9001 certification standards for reliability and quality in our state-of-the-art manufacturing facilities.



# Antennas

## SPECIFICATIONS

### Internal Remote Electrical Tilt (iRET)

BSA-RET400

#### General Specifications

Part Number	BSA-RET400
Protocols	AISG 2.0
RET Type	Type 17
Adjustment Cycles	>10,000 cycles
Tilt Accuracy	$\pm 0.1^\circ$
Temperature Range	-40° C to 70° C

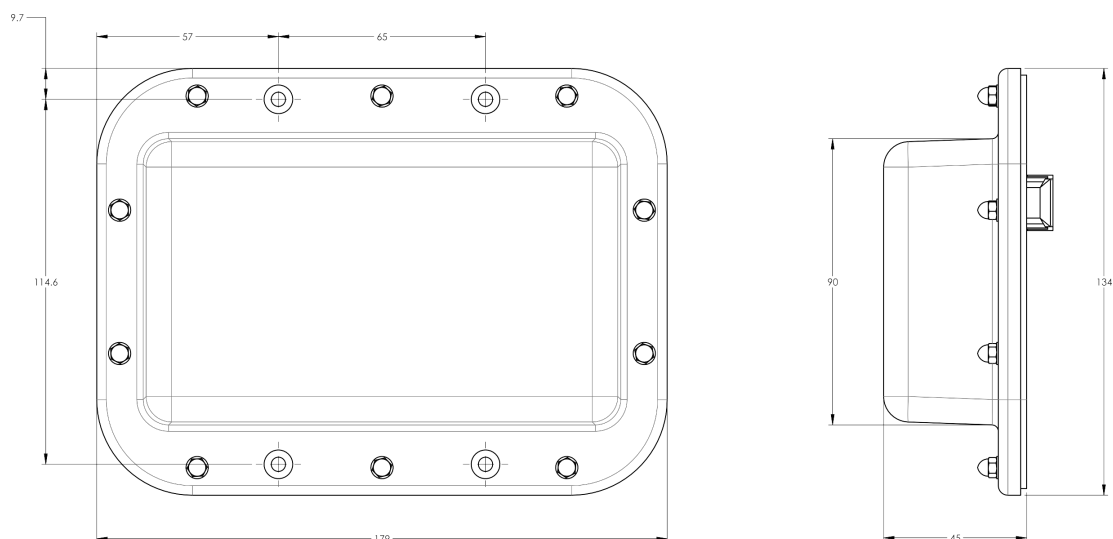
#### Electrical

Data Interface Signal	DC
Input Voltage	10-30 Vdc
Current Consumption Tilt	100 mA at $V_{in}=24$ (500 mA MAX)
Current Consumption Idle	10 mA at $V_{in}=24$

#### Mechanical

Dimensions (LxWxD)	7.0x5.3x1.8 in. (179x134x45 mm)
Housing	ASA/ABS/Aluminum
Weight	1.3 lbs (0.6 kg)

ASA= Acrylic Styrene Acrylonitrile  
ABS=Acrylonitrile Butadiene Styrene





# Antennas

## ORDERING

Internal Remote Electrical Tilt (iRET)

BSA-RET400

Parts & Accessories

Part Number BSA-RET400

Overall Weight 1.3 lbs (0.60 kg)



# Antennas

## STANDARDS & CERTIFICATIONS

### Internal Remote Electrical Tilt (iRET)

BSA-RET400

#### Certifications

<b>Safety</b>	EN 60950-1, UL 60950-1
<b>Emission</b>	EN 55022
<b>Immunity</b>	EN 55024
<b>Environmental</b>	IEC 60068-2-1, IEC 60068-2-2, IEC 60068-2-5, IEC 60068-2-6, IEC-60068-2-11, IEC 60068-2-14, IEC 60068-2-18, IEC 60068-2-27, IEC 60068-2-29, IEC 60068-02-30, IEC 60068-2-52, IEC 60068-2-64, GR-63-CORE 4.3.1, EN 60529, IP 24

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



**CCI** Communication Components Inc.  
EXTENDING WIRELESS PERFORMANCE