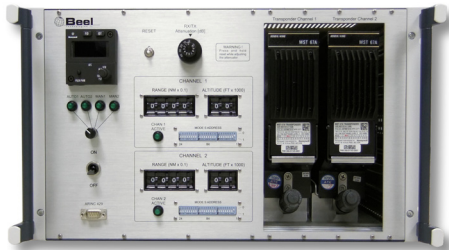




Single Channel



Dual Channel

MasterPoint S3

The Beel Technologies MasterPoint S3 SSR monitor provides continuous verification of integrity, accuracy, phase and azimuth alignment of secondary surveillance radars.

- Single or dual channel version
- Automatic switchover (dual channel only)
- Operation in modes 3/A, C and S Level 3
- Fully solid state
- Built in test and fault reporting
- Modular construction
- Directional antenna
- Integral 50 dB attenuator
- Low lifetime cost
- Indoor 19 inch rack mounting
- Mode S features:
 - Handles Intermode & Formats 0, 4, 5, 11, 16, 20, 21, 24
 - Level 3 (Comm A/B and Comm C ELM) datalink
 - Enhanced Surveillance
 - Surveillance Identifier (SI) Capability
 - Flight ID integrated into transponder controller
 - Optional: ability to set BDS registers using 429

SPECIFICATIONS

Part Numbers: 31169.000 – Single Channel

32169.000 – Dual Channel

Transmitter

Transmit Frequency 1090 ± 1 MHz
 Transmit Power 325 Watts (nominal)

Dimensions (L x W x H)

SSR Monitor 563 x 484 x 268 mm
 Antenna 457 x 584 x 178 mm

Receiver

Center Frequency 1030 ± 0.2 MHz
 Sensitivity -74dBm ±3dBm

Weight

	31169.000	32169.000
SSR Monitor	15 Kgs	24 Kgs
Antenna	4.5 Kgs	

Parameters

Interrogation Modes 3/A ,C, S Level 3
 Mode S Formats 0,4,5,11,16,20,21,24
 Altitude 0-99000 ft in 1000-ft steps
 Range Delay 0.3-250 NM in 0.1 NM steps

Reliability

	31169.000	32169.000
MTBF (hours)	14,800	47,300
MTTR (minutes)	24	30

Antenna

Frequency Range 1020 to 1100 MHz
 Construction Full wave backfire
 Impedance 50 Ohms
 Gain 12.5 ± 0.5 dBi

Environmental

Operating Temperature 0° C to + 40° C
 Storage -40° C to + 65° C
 Relative Humidity Up to 90% , non-condensing
 Altitude, Operating Up to 2,000 m
 Altitude, Non-Operating Up to 3,000 m
 Weather, Antenna Up to 100% humidity
 Wind: 158 km/hr with driving rain or 4 cm of ice loading.
 Up to 240 km/hr wind while not operating.

Power

AC Input 100-250VAC
 Frequency 50-60Hz
 Power consumption 80 watts (31169.000)
 (Typical) 120 watts (32169.000)

MasterPoint S3 Options

Option Number	Description														
000	Standard configuration Mode S Level 3 test transponder														
001	Laptop and PCMCIA 429 card provides ability to set GICB registers <table border="1" style="width: 100%; margin-top: 10px;"> <thead> <tr> <th style="text-align: left;">Description</th> <th style="text-align: left;">BDS</th> </tr> </thead> <tbody> <tr> <td>Aircraft /Flight Identification*</td> <td>2,0</td> </tr> <tr> <td>Selected Altitude</td> <td>4,0</td> </tr> <tr> <td>True Track Angle</td> <td>5,0</td> </tr> <tr> <td>Ground Speed</td> <td>5,0</td> </tr> <tr> <td>True Airspeed</td> <td>5,0</td> </tr> <tr> <td>Own Magnetic Heading</td> <td>6,0</td> </tr> </tbody> </table>	Description	BDS	Aircraft /Flight Identification*	2,0	Selected Altitude	4,0	True Track Angle	5,0	Ground Speed	5,0	True Airspeed	5,0	Own Magnetic Heading	6,0
Description	BDS														
Aircraft /Flight Identification*	2,0														
Selected Altitude	4,0														
True Track Angle	5,0														
Ground Speed	5,0														
True Airspeed	5,0														
Own Magnetic Heading	6,0														
010	Remote leased line operation with supplied modem and custom software to set Mode A, Mode C, Range configuration, and Standby														
020	Remote dial-up modem operation with supplied laptop and custom software to set Mode A, Mode C, Range configuration, and Standby														
030	Remote operation with RS232 connection, laptop and custom software to set Mode A, Mode C, Range configuration, and Standby														
040	Uninterruptible Power Supply (UPS) unit provides continuous AC power in the event of short duration power loss														
050	Antenna Power Monitoring (APM) over TCP/IP														
070	Antenna Power Monitoring (APM) over TCP/IP BITE reporting through Mode C replies (altitude increase)														
080	BITE reporting through Mode C replies (priority encoded altitude increases)														
100	Support for Mode 1 & 2 replies in accordance with the DOD AIM565-1000B														
150	Antenna Power Monitoring (APM) over TCP/IP Support for Mode 1 & 2 replies														

Beel Technologies Inc.

Head Office

170-3705 Place de Java
Brossard, Quebec
J4Y 0E4
Canada

How to reach us:

Tel.: +1 (450) 444-3008
Fax: +1 (450) 444-3009
sales@beeltech.com
<http://www.beeltech.com>