

SSR Monitor

Mode 3/A, C



Single Channel Digital



PrimePoint 3AC

The Beel Technologies PrimePoint 3AC SSR monitor provides continuous verification of integrity, accuracy, phase and azimuth alignment of secondary surveillance radars and includes the following features:

- Single or dual channel version
- Automatic switchover (dual channel only)
- Digital controls
- Operation in modes 3/A, C
- Fully solid state
- Modular construction
- Directional antenna
- Integral 50 dB attenuator
- Low lifetime cost
- Indoor 19 inch 3U or 6U rack mount

SPECIFICATIONS

Part Numbers: 31136 - Single channel

Transmitter

Transmit Frequency 1090 ± 1 MHz

Transmit Power 125 Watts peak (minimum)

200 Watts nominal

Receiver

Center Frequency $1030 \pm 0.5 \text{ MHz}$ Sensitivity $-74 \text{dBm} \pm 3 \text{dB}$

Parameters

Interrogation Modes 3/A,C

Altitude 0-62000 ft in 1000-ft steps Range Delay 0.3-300 NM in 0.1 NM steps

Antenna

Frequency Range 1020 to 1100 MHz
Construction Full wave backfire
Impedance 50 Ohms

Gain $12.5 \pm 0.5 \, dBi$

Power

AC Input 86-264V AC

(24VDC optional)

Frequency 47-63Hz

Power consumption 40 watts (31136) 60 watts (32166)

32166 - Dual channel

Dimensions (L x W x H)

Single channel (3U) 463 x 484 x 134 mm
Dual channel (6U) 563 x 484 x 268 mm
Antenna 457 x 584 x 178 mm

 Weight
 31136
 32166

 SSR Monitor
 9 kg
 17 kg

 Antenna
 4.5 kg

 Reliability
 31136
 32166

 MTBF (hours)
 30,000
 55,000

 MTTR (minutes)
 24
 30

Environmental

Operating Temperature 0° C to Storage -40° C

Relative Humidity Altitude, Operating Altitude, Non-Operating

Weather, Antenna

0° C to + 40° C -40° C to + 65° C

Up to 90%, non-condensing Up to 3,000 m

Up to 5,000 m

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.



SSR Monitor Mode 3/A, C

PrimePoint 3AC Options

Option Number	Description	
000	Standard configuration Mode 3/A, C test transponder	
00E	LCD touch screen and remote control of Mode C, range delay over TCP/IP via embedded web server, and remote control of active channel (in dual channel units only)	
030	Remote operation with RS232 connection and custom software to set Mode C, Range configuration and active channel (in dual channel units only)	
040	Uninterruptible Power Supply (UPS) unit provides continuous AC power in the event of short duration power loss (separate commercial grade unit)	
080	BITE reporting through Mode C replies (priority encoded altitude increases indicate diagnostic information)	

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