

Patent Pending



1RU SMAC-PCR
(front view)

Pilot Carrier Redundancy Switch:

Features:

- ▶ Detects the failure of up to two system pilot carriers and reinserts internal replacement oscillator
- ▶ Reinserts replacement oscillator at two different RF output levels based on user defined threshold settings
- ▶ Monitor & control of all functions through front panel or over the data network (HMS compliant, SNMP v2c) or Web browser
- ▶ Crystal controlled, low spurious oscillators
- ▶ LCD display shows the current alarms and allows detector thresholds to be set
- ▶ Independent removable & replaceable AC power supplies provide full power redundancy
- ▶ Compact 1RU chassis
- ▶ Simple two-cable connection
- ▶ Suitable for headend & hubsite applications
- ▶ Front panel test points for oscillator levels & combined full system output level monitoring
- ▶ Field-upgradeable & swappable pilot carrier filters & replacement oscillators



SMAC-PCR (front view)



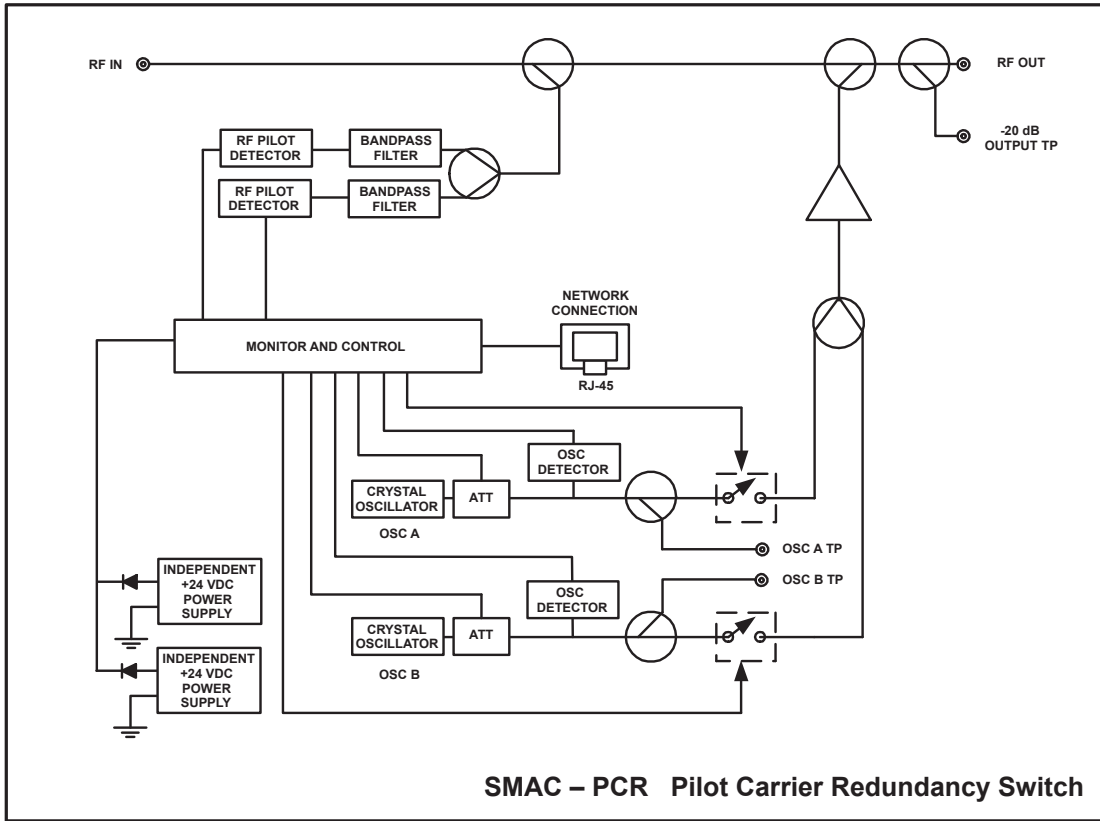
SMAC-PCR (rear view)

Pilot Carrier Redundancy Switch Specifications

SPECIFICATIONS	
BANDWIDTH	50-1000 MHz
INPUT LEVEL (Per Channel)	30-45 dBmV
INSERTION LOSS (Max) (RF IN to RF OUT)	2.7 dB
RETURN LOSS (Input)	16 dB
RETURN LOSS (Output)	16 dB
PILOT OUTPUT LEVEL (at RF OUT Port)	30-45 dBmV ⁽¹⁾
PILOT TEST POINT (Relative to RF OUT Port)	-20 +/- 1 dB
RF OUTPUT TEST POINT	-20 +/- 1 dB
INPUTS (Rear Panel)	RF IN
OUTPUTS (Front Panel)	RF OUT, -20 dB Output TP, -20 dB OSC A TP, -20 dB OSC B TP
OUTPUTS (Rear Panel)	RF OUT
DISPLAY (Front Panel)	2-line/16-character - Back-lit LCD Display
SWITCHES (Front Panel)	Up, Down, Right, Left Enter, F1, F2
SWITCHING TIME	<10mS
NETWORK CONNECTION (Web Page Set-up and SNMP 2.1 & HMS Compliant Monitoring)	RJ-45 Connector
OSCILLATORS	Up to Two, Crystal Controlled & Removable/Replaceable
POWER	Dual Redundant Switching Power Supplies (Diode OR'd & Hot-swappable)
POWER INPUT	AC Version = 100-240 VAC, 47-63 Hz with IEC Compliant AC Cords (one per power supply) DC Version = -40 to -60 VDC Terminal Block Input Only
POWER CONSUMPTION	15W
OPERATING TEMPERATURE	0°C to +50°C (+32°F to +122°F)
HUMIDITY	5-95% (without condensation)
DIMENSIONS	1RU, Rack Mount: 1.75"H x 19.0"W x 17.0"D (4.45H x 48.26W x 43.18D cm)
WEIGHT	9.77 lbs (24.8 kg)
NOTE:	
(1) For pilot channels <= 500 MHz: input detection level noise floor is 23 dBmV. For pilot channels >500 MHz: input detection level noise floor is 25 dBmV. Ensure reference level is high enough that hard fail threshold does not go below these values.	

Pilot Carrier Redundancy Switch:

Functional Schematic



Ordering Information

Part Number	Description
PCR-SW-xx/yy	SMAC-PCR Two Pilot Redundancy Switch (xx/yy = pilot frequencies in MHz) AC Power
PCR-SW-xx	SMAC-PCR One Pilot Redundancy Switch (xx = pilot frequency in MHz) AC Power
PCR-SW-DC-xx/yy	SMAC-PCR Two Pilot Redundancy Switch (xx/yy = pilot frequencies in MHz), -48 VDC Power
PCR-SW-DC-xx	SMAC-PCR One Pilot Redundancy Switch (xx = pilot frequency in MHz), -48 VDC Power
PCR-OSC-xx	SMAC-PCR Replacement Oscillator (xx = oscillator frequency in MHz)
PCR-NBP-xx	SMAC-PCR Replacement Narrow Bandpass Filter (xx = filter centre frequency in MHz)
PCR-PS	SMAC-PCR Replacement Power Supply Module, AC Power
PCR-PSV0	SMAC-PCR Replacement Power Supply Module for Legacy SMAC Units
PCR-PS-DC	SMAC-PCR Replacement Power Supply Module, -48 VDC Power

NOTES:
 Items 5 & 6 can be ordered separately as back-up devices for the existing modules in the SMAC-PCR-SW.
 Items 5 & 6 are required when the customer needs to change the frequency of one or both of the oscillators.
 Items 5 & 6 must be ordered together and must have the same frequency for the PCR Switch to operate properly.

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All specifications at 25°C unless noted otherwise and are subject to change without notice.

