REVISIONS				
ZONE	REV.	DESCRIPTION	DATE	APPROVED
	–	ORIGINAL RELEASE JOB# P503012E	5/23/05	

DESCRIPTION

PMI MODEL RFOC–811–QRC IS A CUSTOM BUILT 8 TO 11 GHz RF SUB–SYSTEM USED TO PERFORM RF SIGNAL PROCESSING.

SPECIFICATIONS

- FREQUENCY: 8 TO 11 GHz
- INPUT POWER:
  - AT J1005: +10 TO +20 dBm
  - AT J1013: –50 TO +20 dBm
  - AT J1006: +10 TO +15 dBm
  - AT J1016: +8 TO +13 dBm
  - AT J1017: –50 TO +20 dBm
  - AT J1011: +8 TO +13 dBm
  - AT J1008: –60 TO –10 dBm
- OUTPUT POWER:
  - AT J1007: 11.65 dBm
  - AT J1014: –50 TO +6.92 dBm
  - AT J1015: –50 TO +5 dBm
  - AT J1012: –60 TO +13.00 dBm
  - AT J1009: –60 TO –0.35 dBm
  - AT J1010: –45.35 TO +4.65 dBm
- POWER SUPPLY: +5V @ 5.0 A MAXIMUM
  +15V @ 3.0 A MAXIMUM
  –15V @ 3.0 A MAXIMUM
  +28V @ 1.0 A MAXIMUM
- VSWR: 2.0:1 ALL INPUT PORTS
  2.5:1 ALL OUTPUT PORTS
- THROUGHPUT DELAY: 10nS MAXIMUM ALL PATHS
- SWITCH ON/OFF: 50nS MAXIMUM
- ATTENUATOR RISE/FALL: 1.6uS/100nS MAXIMUM
- DEPTH OF MODULATION:
  - K1: 60dB MINIMUM
  - AT1–AT6, AT8: 50dB MINIMUM
  - AT7: 40dB MINIMUM
  - SW1–SW6, SW8: 60dB MINIMUM
  - SW7: 50dB MINIMUM
- RF CONNECTORS: SMA FEMALE

- GAINS/LOSS:
  - GAIN J1005 TO J1014: 3dB MINIMUM (AT8 SET TO MINIMUM, SW8 SET TO ON)
  - GAIN J1005 TO J1007: 6dB MINIMUM, 20dB MAXIMUM (SW2 SET TO ON)
  - GAIN J1013 TO J1014: 10dB MINIMUM, 23dB MAXIMUM (AT2 SET TO MINIMUM, AT7 AND AT8 SET TO MAXIMUM, SW7 AND SW8 SET TO OFF)
  - GAIN J1013 TO J1014: 0dB MINIMUM, 13dB MAXIMUM (AT2 SET TO MAXIMUM, AT7 AND AT8 SET TO MINIMUM, SW7 AND SW8 SET TO ON)
  - GAIN J1013 TO J1007: 3dB MINIMUM, 16dB MAXIMUM (AT7 SET TO MINIMUM AND SW7 SET TO ON)
  - LOSS J1006 TO J1015: 10dB MAXIMUM (AT1 SET TO MINIMUM, SW1 SET TO ON, AND K1 SET TO ON)
  - GAIN J1006 TO J1017: 3dB MINIMUM, 20dB MAXIMUM (AT1 SET TO MINIMUM, SW1 SET TO ON AND K1 SET TO OFF)
  - GAIN J1016 TO J1017: 3dB MINIMUM, 20dB MAXIMUM (AT6 SET TO MINIMUM AND SW6 SET TO ON)
  - GAIN J1012 TO J1017: 3dB MINIMUM, 20dB MAXIMUM (AT3 SET TO MINIMUM AND SW3 SET TO ON
  - GAIN J1011 TO J1017: 3dB MINIMUM, 20dB MAXIMUM (AT5 SET TO MINIMUM AND SW5 SET TO ON)
  - GAIN J1008 TO J1009: 6dB MINIMUM AND 16dB MAXIMUM (AT4 SET TO MINIMUM AND SW4 SET TO ON)
  - GAIN J1008 TO J1010: 9dB MINIMUM, 19dB MAXIMUM

ENVIRONMENTAL RATINGS:

- TEMPERATURE: –55°C TO +85°C (OPERATING)
  –65°C TO +125°C (STORAGE)
- HUMIDITY: MIL–STD–202F, METHOD 103B COND. B
- SHOCK: MIL–STD–202F, METHOD 213B COND. B
- VIBRATION: MIL–STD–202F, METHOD 204D COND. B
- ALTITUDE: MIL–STD–202F, METHOD 105C COND. B
- TEMPERATURE CYCLE: MIL–STD–202F, METHOD 107D COND. A

NOTE: SPECIFICATIONS WILL VARY OVER OPERATING TEMPERATURE
NOTE: THE ABOVE SPECIFICATIONS ARE SUBJECT TO CHANGE OR REVISION

ALL DIMENSIONS ARE IN INCHES
TOLERANCES:
X.XX ±0.020
X.XXX ±0.010

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ISO 9001:2000 CERTIFIED

APPROVALS	DATE
DRAWN JKM & YR	4/5/06
CHECKED	
ISSUED	

TITLE: PRODUCT FEATURE
RFOC–811–QRC
8 – 11 GHz RF SUB–SYSTEM USED TO PERFORM RF SIGNAL PROCESSING

SIZE	FSCM NO.	DWG NO.	REV.
A	0ZXZ8	100–7424	–

SCALE N:S SHEET 1 OF 3

DESCRIPTION

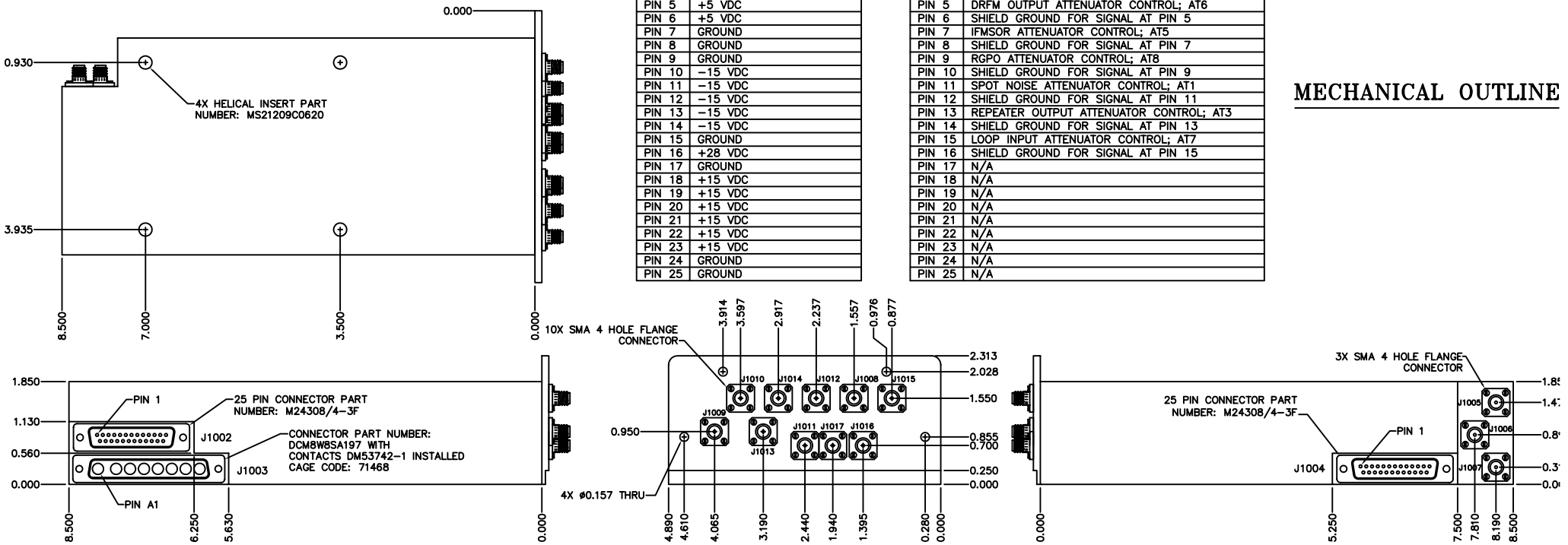
PMI MODEL RFOC-811-QRC IS A CUSTOM BUILT 8 TO 11 GHz RF SUB-SYSTEM USED TO PERFORM RF SIGNAL PROCESSING.

REVISIONS				
ZONE	REV.	DESCRIPTION	DATE	APPRC
	–	ORIGINAL RELEASE JOB# P503012E	5/23/05	

PINOUT FOR CONNECTOR J1002	
PIN NO.	FUNCTIONAL DESCRIPTION
PIN 1	K1 RELAY CMD
PIN 2	GROUND
PIN 3	GROUND
PIN 4	+5 VDC
PIN 5	+5 VDC
PIN 6	+5 VDC
PIN 7	GROUND
PIN 8	GROUND
PIN 9	GROUND
PIN 10	-15 VDC
PIN 11	-15 VDC
PIN 12	-15 VDC
PIN 13	-15 VDC
PIN 14	-15 VDC
PIN 15	GROUND
PIN 16	+28 VDC
PIN 17	GROUND
PIN 18	+15 VDC
PIN 19	+15 VDC
PIN 20	+15 VDC
PIN 21	+15 VDC
PIN 22	+15 VDC
PIN 23	+15 VDC
PIN 24	GROUND
PIN 25	GROUND

PINOUT FOR CONNECTOR J1004	
PIN NO.	FUNCTIONAL DESCRIPTION (INPUTS 0 – 10 VDC)
PIN 1	REPEATER INPUT ATTENUATOR CONTROL; AT2
PIN 2	SHIELD GROUND FOR SIGNAL AT PIN 1
PIN 3	DRFM INPUT ATTENUATOR CONTROL; AT4
PIN 4	SHIELD GROUND FOR SIGNAL AT PIN 3
PIN 5	DRFM OUTPUT ATTENUATOR CONTROL; AT6
PIN 6	SHIELD GROUND FOR SIGNAL AT PIN 5
PIN 7	IFMSOR ATTENUATOR CONTROL; AT5
PIN 8	SHIELD GROUND FOR SIGNAL AT PIN 7
PIN 9	RGPO ATTENUATOR CONTROL; AT8
PIN 10	SHIELD GROUND FOR SIGNAL AT PIN 9
PIN 11	SPOT NOISE ATTENUATOR CONTROL; AT1
PIN 12	SHIELD GROUND FOR SIGNAL AT PIN 11
PIN 13	REPEATER OUTPUT ATTENUATOR CONTROL; AT3
PIN 14	SHIELD GROUND FOR SIGNAL AT PIN 13
PIN 15	LOOP INPUT ATTENUATOR CONTROL; AT7
PIN 16	SHIELD GROUND FOR SIGNAL AT PIN 15
PIN 17	N/A
PIN 18	N/A
PIN 19	N/A
PIN 20	N/A
PIN 21	N/A
PIN 22	N/A
PIN 23	N/A
PIN 24	N/A
PIN 25	N/A

MECHANICAL OUTLINE



PINOUT FOR CONNECTOR J1003	
PIN NO.	FUNCTIONAL DESCRIPTION (ALL TTL INPUT)
PIN A1	LOOP INPUT ENABLE SWITCH CONTROL; SW-7
PIN A2	LOOP FILL ENABLE SWITCH CONTROL; SW-2
PIN A3	DELAY LINE RGPO SWITCH CONTROL; SW-8
PIN A4	CHOP AM SWITCH CONTROL; SW-4
PIN A5	IFMSOR AM SWITCH CONTROL; SW-5
PIN A6	DRFM AM SWITCH CONTROL; SW-6
PIN A7	NOISE AM SWITCH CONTROL; SW-1
PIN A8	REPEATER AM SWITCH CONTROL; SW-3

ALL DIMENSIONS ARE IN INCHES
TOLERANCES:
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X.XXX ±0.010

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APPROVALS	DATE
DRAWN JKM & YR	4/5/06
CHECKED	
ISSUED	

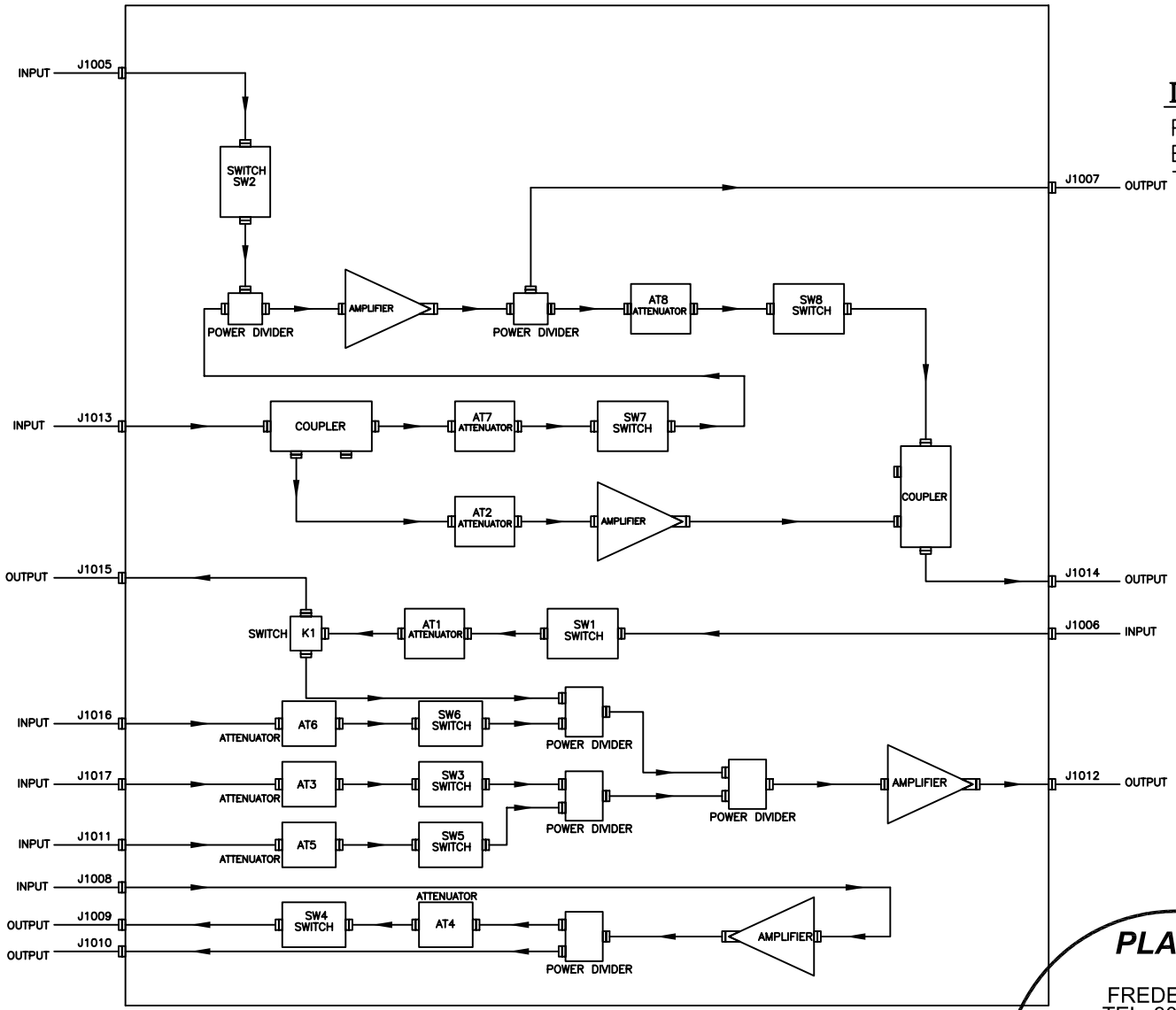
TITLE: MECHANICAL OUTLINE
RFOC-811-QRC
8 – 11 GHz RF SUB-SYSTEM USED TO PERFORM RF SIGNAL PROCESSING

SIZE	FSCM NO.	DWG NO.
A	0ZXZ8	100-7424

SCALE N:S SHEET 2 OF

FUNCTIONAL BLOCK DIAGRAM

REVISIONS				
ZONE	REV.	DESCRIPTION	DATE	APPROVED
	–	ORIGINAL RELEASE JOB# P503012E	5/23/05	



DESCRIPTION

PMI MODEL RFOC–811–QRC IS A CUSTOM BUILT 8 TO 11 GHz RF SUB–SYSTEM USED TO PERFORM RF SIGNAL PROCESSING.

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APPROVALS	DATE
DRAWN JKM & YR	4/5/06
CHECKED	
ISSUED	

TITLE: FUNCTIONAL BLOCK DIAGRAM
RFOC–811–QRC
8 – 11 GHz RF SUB–SYSTEM USED TO PERFORM RF SIGNAL PROCESSING

SIZE	FSCM NO.	DWG NO.	REV.
A	0ZXZ8	100–7424	–

SCALE N:S SHEET 3 OF 3