

EIDP Coveragepage For JFET Testing

Unit Identification						
Name	:	JFET PFM Module				
Part #	:	10209750-1				
S/N	:	#010				

Environmental Testing		Axes Tested	Temp	Duration/# of Cycle	Requirement	Source	Waiver
Random Vibration Test		X, Y, Z	Rm T	1 min/axis	X, Y, Z	SSSD, JFET-DES-07	
High Level Sine Vibe Test		None	NA	NA	X, Y, Z	SSSD, JFET-DES-07	HR-SP-JPL-RFW-005
Bakeout		NA	80 C	25.25 hrs	> 24 HRS		
Thermal Cycles		NA	RmT to 80 K	2	Minimum 1	D-20549	

Performance Characteristics			Specification	Source	Waiver
Power needed for <11 bad channels (Min Perf.)	8.57 mW		11 mW for CQM, 7 mW for PFM/FS	SSSD, JFET-TEC-05, JFET-PER-02	HR-SP-JPL-RFW-004
Power needed for <4 bad channels (Design Value)	9.19 mW		11 mW for CQM, 7 mW for PFM/FS	SSSD, JFET-TEC-05, JFET-PER-02	
Power needed for 100 % Yield per unit	10.30 mW		NA	NA	
Median Noise at < 11 bad chs.	10.14 nV/rtHz	<15 nV/rtHz Min Performance	<7 nV/rtHz Design Value	SSSD, JFET-PER-01	
Median Noise at < 4 bad chs.	8.78 nV/rtHz			SSSD, JFET-PER-01	
Median Noise at 100 % Yield.	9.02 nV/rtHz			SSSD, JFET-PER-01	
# of Channels over the max. offset voltage	0	< 15 mV		SSSD, BDA-DRCU-27	
Common Mode Rejection Ratio	< -60 dB by design, as measured in EM4 unit			SSSD, BDA-DRCU-11	

Board Level Details		Board SN 019 (JAA'-JDD')		Board SN 026 (JAA'-JDD')		Source	Waiver
# Channels Tested	:	24		24			
Median Noise at 3.5 mW	:	24.85 nV/rtHz		20.23 nV/rtHz		SSSD, JFET-PER-01	
# of good channels at 3.5 mW	:	5	20.8% Yield	9	37.5% Yield	SSSD, JFET-PER-02	
Power Needed for 100 % Yield	:	5.26 mW		5.03 mW		SSSD, JFET-PER-02	
Median Noise at High Power (w/ 100 % Yield)		9.09 nV/rtHz		8.88 nV/rtHz		SSSD, JFET-PER-01	
Median Gain at High Power		0.97		0.97		NA	
Heater Resistance, 4K Reference value:		2.374 kΩ		2.391 kΩ		NA	

Definitions						
Good Channels	:	Noise less than a min. performance value of 15 nV/rtHz				
Yield	:	# of Good Channels / 24				

Filenames						
Noise Measurements	:	JFET_Module_SN010_Noise_data.pdf				
Source Voltages (RmT, 4K)	:	JFET Module SN010,SN011 source voltage data.pdf				

Notes						
1)	The Base temperature for all performance characterization was 4K					
2)	All Noise Measurements were made with the inputs shorted to ground					
3)	Type of membranes:	SN019: 24% Overetched	SN026: 44% Overetched			



SPIRE JFET Module S/N 010