



Near Space Solar Power Conditioning Module

Multidisciplinary Senior Design

P12408: NSSPCM

External Interface Control Document (ICD)

Subsystem	System 1	System 2	Units	NSSPCM Values	Reference	Comments
Communication	Payload	Microcontroller	--	--	Communication Specification	See Communication Specification
	Payload	PCB	Voltage (V)	-7.5 to 12.5	MAX384 Datasheet	Absolute max/min for RS-485
			Wire Gauge (AWG)	24		
			Connector	MOLEX 39-01-2040		CONN RECEPT 4POS DUAL
			Pinout	RS-485 A and B	MAX384 Datasheet	
Power Regulation	Payload	PCB	Voltage (V)	12.0 V		Nominal
			Power (W)	5.0 (max); 2.0 (avg)		
			Wire Gauge (AWG)	18		
			Connector	MOLEX 39-01-3022		CONN RECEPT 2POS VERT DUAL
Module Enclosure	Payload	NSSPCM	Diameter (inches)	0.25	P12408_ME,7	
			Mounting Holes (qty.)	4	P12408_ME,7	
	NSSPCM	Solar Panel	Diameter (inches)	0.125	P12408_ME,11	
			Mounting Holes (qty.)	20	P12408_ME,11	