

P13271 AMSAT MPPT



Selection Criteria	MPPT Implementation				
	Analog (Discrete)	Digital (Gates)	Embedded Computer	Micro-controller (Reference)	Dedicated MPPT Integrated Circuit
Complexity	0	-	-	0	+
Radiation Tolerance	+	0	0	0	0
Cost	0	-	-	0	+
Quiescent Power	0	-	-	0	+
Temperature Tolerance	0	0	0	0	0
Response Time	+	0	+	0	0
PCB Area	0	-	-	0	+
Sum + 's	2	0	1	0	4
Sum 0's	5	3	2	7	3
Sum -'s	0	4	4	0	0
Net Score	2	-4	-3	0	4
Rank	2	5	4	3	1
Continue?	YES	NO	NO	NO	YES

Selection Criteria	Track Power Point					
	V/I Slope	Incremental Conductance	Constant Voltage	P&O Method (Reference)	Load I/V/P Max	System Oscillatory Method
Efficiency	+	+	0	0	0	+
Complexity	-	-	+	0	-	0
Response Time	+	0	0	0	+	+
PCB Area (if analog)	-	-	+	0	0	-
Sum + 's	2	1	2	0	1	2
Sum 0's	0	1	2	4	2	1
Sum -'s	2	2	0	0	1	1
Net Score	0	-1	2	0	0	1
Rank	4	6	1	5	3	2
Continue?	YES	NO	YES	NO	NO	YES