

BUILD YOUR OWN MULTIPLEXER

Plug and play switching solution that allows the user to design a multiplexer from 8 outputs up to 64 outputs using an SP8T card fitted with R516 QUARTZ relay.

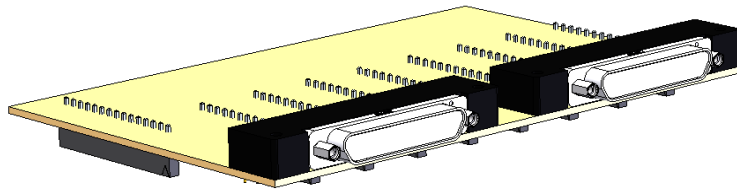
The build your own multiplexer solution offers an ideal setup for engineers who are looking to create SPnT switching solutions.

It allows the user to design an RF multiplexer by choosing a control card and SP8T RF switches.

Either package provides hardware such as control card, flex PCB, RF cable and SP8T card that allows the user to interact and control each individual RF relay. The user needs to assemble the different blocks together to create a communication interface between remote control card and SP8T cards.

BILL OF MATERIAL

Remote ctrl card

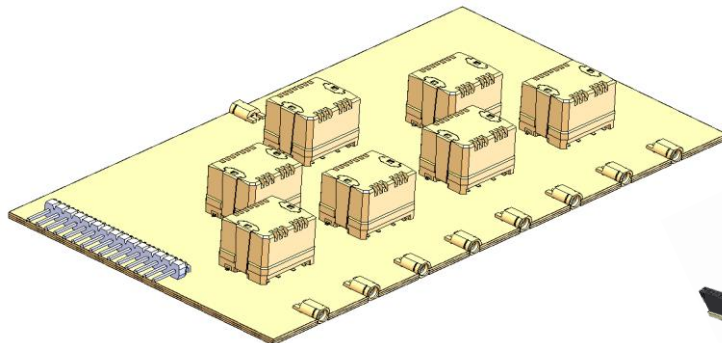


RF cables fitted with SMPM connectors

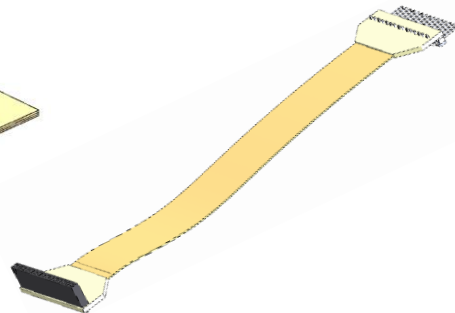


.034" CuNi cable type

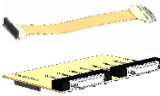
SP8T fitted with SMPM connectors



Flex-PCB for remote ctrl



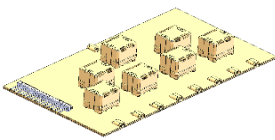
HOW TO ORDER

Part number	R599141000	R568008141	R599141100
Needed configuration			
SP8T	-	1	-
SP16T	1	3	2
SP24T	1	4	3
SP32T	1	5	4
SP40T	1	6	5
SP48T	1	7	6
SP56T	1	8	7
SP64T	1	9	8

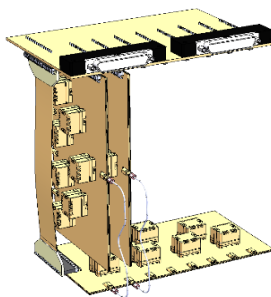
Example:

Needed configuration for SP32T :
(x1) R599141000 ctrl card with flex PCB
(x5) R568008141 SP8T
(x4) R599141100 RF cable

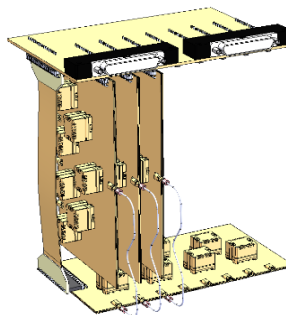
SP8T



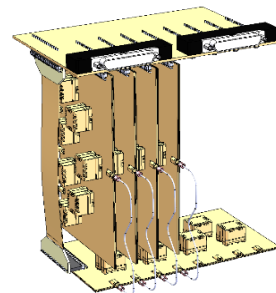
SP16T



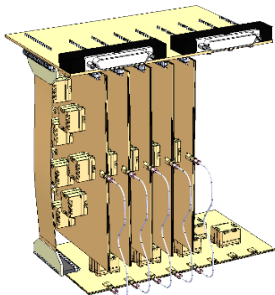
SP24T



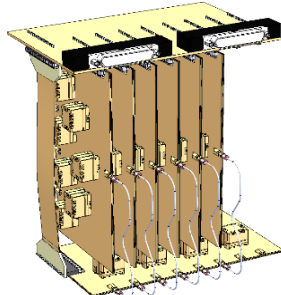
SP32T



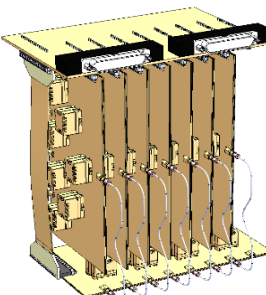
SP40T



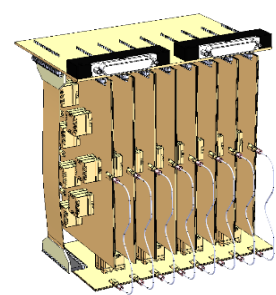
SP48T



SP56T



SP64T



RF CHARACTERISTICS *

Number of ways : **From 8 up to 64**

Frequency range : **0 - 18 GHz**

Impedance : **50 Ohms**

Frequency (GHz)	DC - 3	3 - 8	8 - 12.4	12.4 - 15	15 - 18
VSWR max	1,50	1,50	2,40	2,40	2,40
Insertion loss max	4.00 dB	7.00 dB	10.00 dB	12.00 dB	14.00 dB
Isolation min	50 dB	40 dB	40 dB	40 dB	40 dB

Cryogenic characteristics are not measured during product acceptance test.

RF performances are based on customers test reports.

ELECTRICAL CHARACTERISTICS

Actuator ** : **LATCHING**

Nominal current : **30 mA**

Actuator voltage (Vcc) : **12V (10.2 to 13V)**

Terminals : **MicroD-Sub 69 contacts (female - socket)**

MECHANICAL CHARACTERISTICS

Connectors : **SMPM (Male receptacle full detent)**

Life : **3 million cycles per position**

Switching Time : **< 5 ms**

Construction : **Splashproof**

Weight : **< from 150 g up to 1200 g**

ENVIRONMENTAL CHARACTERISTICS

Operating temperature range : **-273°C to +85°C**

Storage temperature range : **-273°C to +85°C**

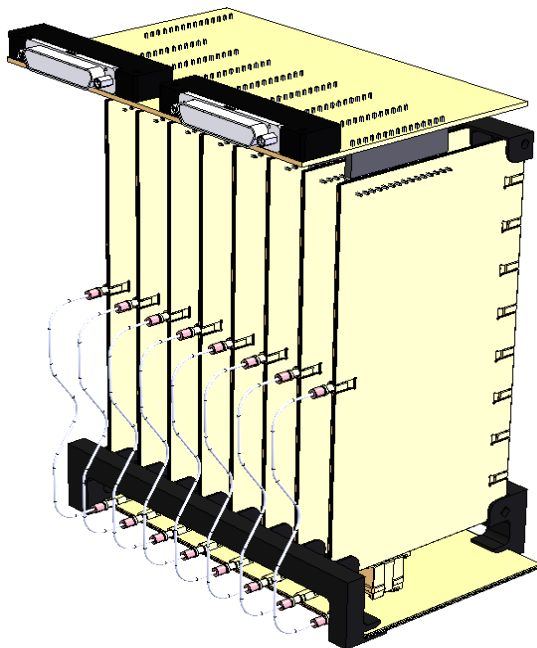
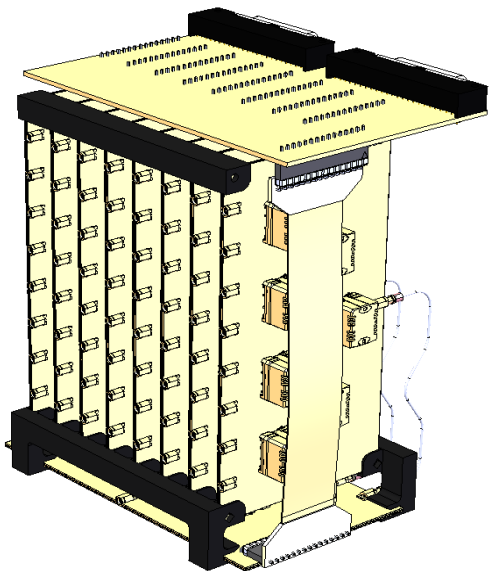
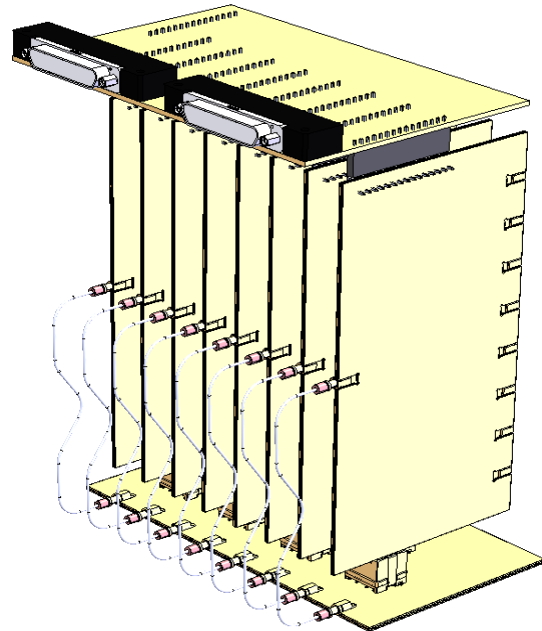
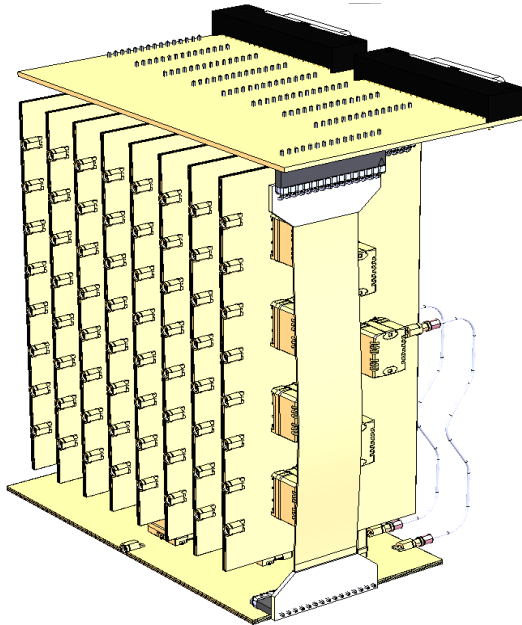
(* Specified with only one way switched)

(** More than one position can be switched at the same time)

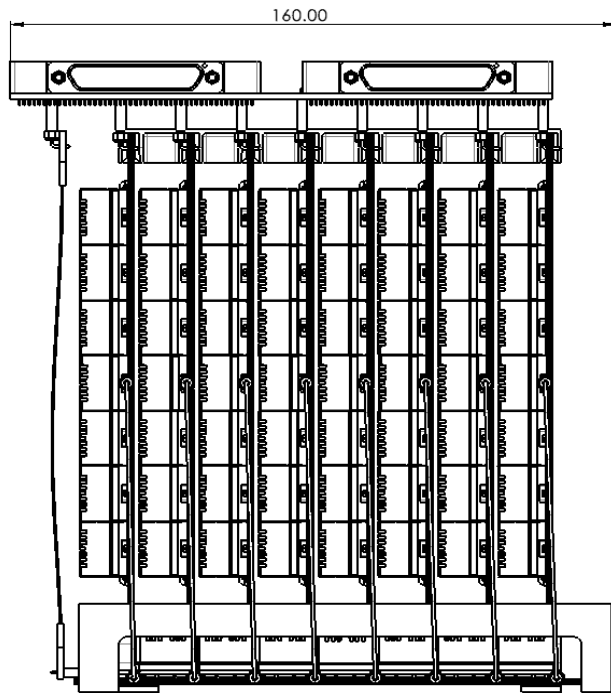
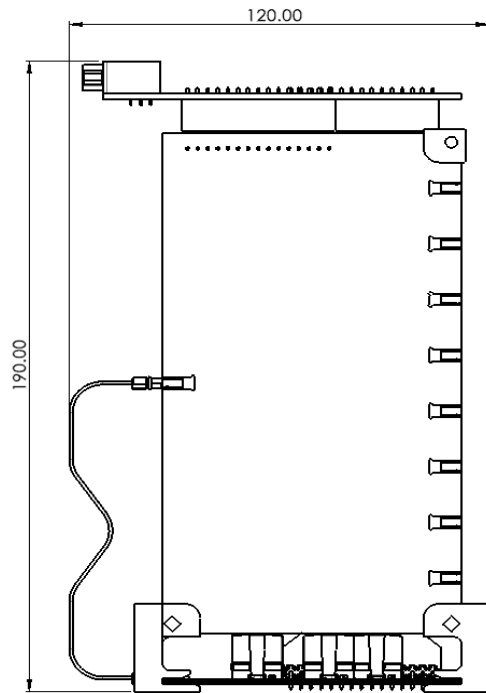


DRAWING

Mounting bracket not included and not provided



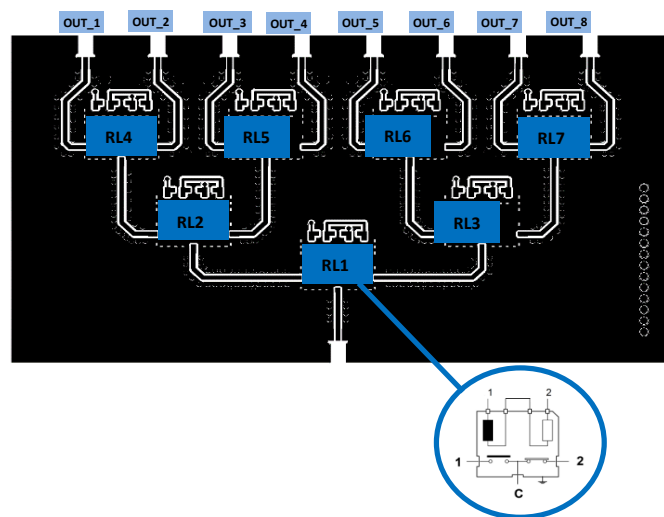
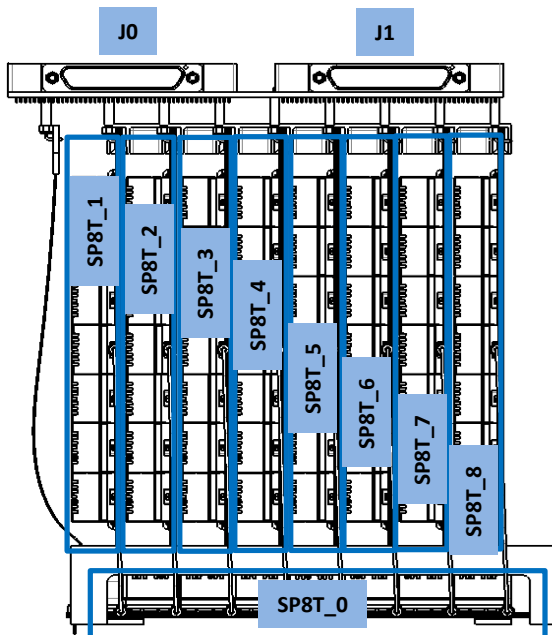
DRAWING



General tolerances : ± 25 mm [0.98 in]

Mounting bracket not included and not provided

SCHEMATIC DIAGRAM



THRU TABLE

MicroD-Sub 69 contacts (female - socket)

		J0 (Pin identification)		
		+	-	RF continuity
SP8T_0	RL1	24	23	C ↔ 1
		23	24	C ↔ 2
	RL2	22	21	C ↔ 1
		21	22	C ↔ 2
	RL3	20	19	C ↔ 1
		19	20	C ↔ 2
	RL4	47	46	C ↔ 1
		46	47	C ↔ 2
	RL5	45	44	C ↔ 1
		44	45	C ↔ 2
	RL6	69	68	C ↔ 1
		68	69	C ↔ 2
	RL7	67	66	C ↔ 1
		66	64	C ↔ 2

		J0 (Pin identification)		
		+	-	RF continuity
SP8T_1	RL1	18	17	C ↔ 1
		17	18	C ↔ 2
	RL2	16	15	C ↔ 1
		15	16	C ↔ 2
	RL3	43	42	C ↔ 1
		42	43	C ↔ 2
	RL4	41	40	C ↔ 1
		40	41	C ↔ 2
	RL5	39	38	C ↔ 1
		38	39	C ↔ 2
	RL6	65	64	C ↔ 1
		64	65	C ↔ 2
	RL7	63	62	C ↔ 1
		62	63	C ↔ 2

		J0 (Pin identification)		
		+	-	RF continuity
SP8T_2	RL1	14	13	C ↔ 1
		13	14	C ↔ 2
	RL2	12	11	C ↔ 1
		11	12	C ↔ 2
	RL3	37	36	C ↔ 1
		36	37	C ↔ 2
	RL4	35	34	C ↔ 1
		34	35	C ↔ 2
	RL5	61	60	C ↔ 1
		60	61	C ↔ 2
	RL6	59	58	C ↔ 1
		58	59	C ↔ 2
	RL7	57	56	C ↔ 1
		56	57	C ↔ 2

		J0 (Pin identification)		
		+	-	RF continuity
SP8T_3	RL1	10	9	C ↔ 1
		9	10	C ↔ 2
	RL2	8	7	C ↔ 1
		7	8	C ↔ 2
	RL3	6	5	C ↔ 1
		5	6	C ↔ 2
	RL4	33	32	C ↔ 1
		32	33	C ↔ 2
	RL5	31	30	C ↔ 1
		30	31	C ↔ 2
	RL6	55	54	C ↔ 1
		54	55	C ↔ 2
	RL7	53	52	C ↔ 1
		52	53	C ↔ 2

THRU TABLE

		J0 / J1 (Pin identification)		
		+	-	RF continuity
SP8T_4	RL1	4	3	C ↔ 1
		3	4	C ↔ 2
	RL2	2	1	C ↔ 1
		1	2	C ↔ 2
	RL3	24	23	C ↔ 1
		23	24	C ↔ 2
	RL4	29	28	C ↔ 1
		28	29	C ↔ 2
	RL5	27	26	C ↔ 1
		26	27	C ↔ 2
	RL6	51	50	C ↔ 1
		50	51	C ↔ 2
	RL7	49	48	C ↔ 1
		48	49	C ↔ 2

		J1 (Pin identification)		
		+	-	RF continuity
SP8T_5	RL1	20	19	C ↔ 1
		19	20	C ↔ 2
	RL2	18	17	C ↔ 1
		17	18	C ↔ 2
	RL3	16	15	C ↔ 1
		15	16	C ↔ 2
	RL4	42	41	C ↔ 1
		41	42	C ↔ 2
	RL5	40	39	C ↔ 1
		39	40	C ↔ 2
	RL6	65	64	C ↔ 1
		64	65	C ↔ 2
	RL7	63	62	C ↔ 1
		62	63	C ↔ 2

		J1 (Pin identification)		
		+	-	RF continuity
SP8T_6	RL1	14	13	C ↔ 1
		13	14	C ↔ 2
	RL2	12	11	C ↔ 1
		11	12	C ↔ 2
	RL3	38	37	C ↔ 1
		37	38	C ↔ 2
	RL4	36	35	C ↔ 1
		35	36	C ↔ 2
	RL5	61	60	C ↔ 1
		60	61	C ↔ 2
	RL6	59	58	C ↔ 1
		58	59	C ↔ 2
	RL7	57	56	C ↔ 1
		56	57	C ↔ 2

		J1 (Pin identification)		
		+	-	RF continuity
SP8T_7	RL1	10	9	C ↔ 1
		9	10	C ↔ 2
	RL2	8	7	C ↔ 1
		7	8	C ↔ 2
	RL3	34	33	C ↔ 1
		33	34	C ↔ 2
	RL4	32	31	C ↔ 1
		31	32	C ↔ 2
	RL5	30	29	C ↔ 1
		29	30	C ↔ 2
	RL6	55	54	C ↔ 1
		54	55	C ↔ 2
	RL7	53	52	C ↔ 1
		52	53	C ↔ 2

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ISSUE 06-03-26

SERIE : SPnT

PART NUMBER : R568 xxx 141

THRU TABLE

		J1 (Pin identification)		
		+	-	RF continuity
SP8T_8	RL1	6	5	C ↔ 1
		5	6	C ↔ 2
	RL2	4	3	C ↔ 1
		3	4	C ↔ 2
	RL3	2	1	C ↔ 1
		1	2	C ↔ 2
	RL4	28	27	C ↔ 1
		27	28	C ↔ 2
	RL5	26	25	C ↔ 1
		25	26	C ↔ 2
	RL6	51	50	C ↔ 1
		50	51	C ↔ 2
	RL7	49	48	C ↔ 1
		48	49	C ↔ 2