

Temperature test report

(1) Temperature Test



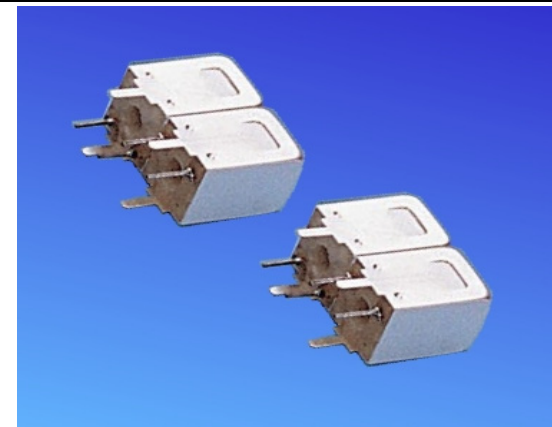
Testing Organization:
Temwell Corporation



Testing Machine:
Temperature & Humidity Tester Chamber
THS-A4C-100 STD

Testing Specification:
Operation Temperature: - 30°C ~ + 70°C
Storage Temperature: - 30°C ~ + 80°C

(2) Test subject:



Item:
Helical Band Pass Filter 7H2 Series
1. TD6711B2-460.36M
2. TD6730B-175M

Require:
Operation Temperature: - 30°C ~ + 70°C
Storage Temperature: - 30°C ~ + 80°C

(3) Testing and test result:

Part number 1

TD6711B2-460.36M

Electrical Characteristics Spec. Approval Sheet

Parts Name : TD6711B2-460.36M(B) 9918 (Double Tuning)

Date : MAR.09.2005

(1) For -30°C~+70°C Temperature ΔF Draft vs. Spec's Approval.

Items	Temp °C	Time Age Hour	Fo MHz	BW(MHz) Fo to ~ -(-3dB)	BW(MHz) Fo to ~ +(-3dB)	Total -3BW (MHz)	IL (dB)	R.L. S11 (dB)	Atten. Fo-40M (dB)	Atten. Fo+40M (dB)	Pass
SPEC	-30°C~+70°C	--	460.36	> 6.0	> 6.0	> 12.0	< 2.5	> 12.0	> 30.0	> 25.0	Pass

	Temp °C	Time Age Hour	Fo MHz	BW(MHz) Fo to ~ -(-3dB)	BW(MHz) Fo to ~ +(-3dB)	Total -3BW (MHz)	IL (dB)	R.L. S11 (dB)	Atten. Fo-40M (dB)	Atten. Fo+40M (dB)	Pass
f1	-30°C	1.5 H	460.36	6.86	8.40	15.26	1.31	28.23	34.50	27.06	Pass
f2	-20°C	0.5 H	460.36	7.00	8.30	15.30	1.34	29.22	34.59	27.15	Pass
f3	-10°C	0.5 H	460.36	7.13	8.10	15.23	1.39	30.39	35.19	27.22	Pass
f4	+0°C	0.5 H	460.36	7.26	7.97	15.23	1.44	31.53	34.66	27.32	Pass
f5	+10°C	0.5 H	460.36	7.40	7.84	15.24	1.49	32.87	34.76	27.37	Pass
f6	+25°C	0.5 H	460.36	7.56	7.57	15.13	1.56	34.51	34.69	27.44	Pass
f7	+40°C	0.5 H	460.36	7.93	7.30	15.23	1.65	37.32	34.56	27.55	Pass
f8	+50°C	0.5 H	460.36	8.13	7.07	15.20	1.70	35.91	34.42	27.62	Pass
f9	+60°C	0.5 H	460.36	8.73	6.47	15.20	1.81	28.31	34.00	27.84	Pass
f10	+70°C	0.5 H	460.36	8.93	6.27	15.20	1.83	25.98	33.86	27.91	Pass
f11	+80°C	0.5 H	460.36	9.13	6.07	15.20	1.87	24.18	33.71	27.93	Note

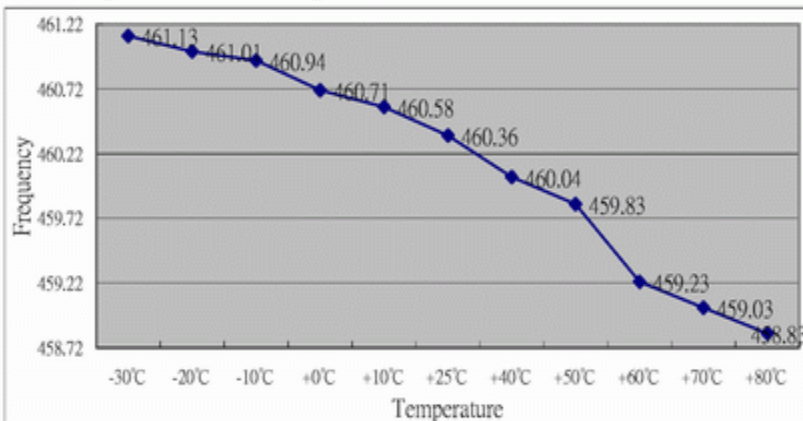
Note : The aging test data at +80°C is just only for your kind reference.

Temperature Aging Test Report

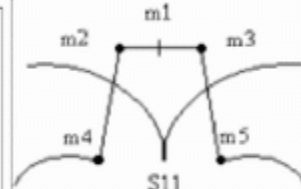
(2) Temperature & Time Process & Fo Frequency

	Temp °C	Time Age Hour	$\Delta f(\%)(\text{MHz})$	Fo MHz	At -3dB MHz	At -3dB MHz	-3BW MHz	IL (dB)	S11 (dB)	Atten. Fo-40M (dB)	Atten. Fo+40M (dB)
			Temp. Draft (-30~+70°C) < Fo×0.5% (Tolerance)								
f1	-30°C	1.5H	0.167%(0.77M)	461.13	453.50	468.76	15.26	1.31	36.76	34.50	27.06
f2	-20°C	0.5H	0.141%(0.65M)	461.01	453.36	468.66	15.30	1.36	37.47	34.59	27.15
f3	-10°C	0.5H	0.125%(0.58M)	460.94	453.23	468.46	15.23	1.39	36.02	35.19	27.22
f4	+0°C	0.5H	0.076%(0.35M)	460.71	453.10	468.33	15.23	1.45	35.33	34.66	27.32
f5	+10°C	0.5H	0.047%(0.22M)	460.58	452.96	468.20	15.24	1.48	35.70	34.76	27.37
f6	+25°C	0.5H	0.000%(0.00M)	460.36	452.80	467.93	15.13	1.56	35.13	34.69	27.44
f7	+40°C	0.5H	0.069%(0.32M)	460.04	452.43	467.66	15.23	1.65	36.97	34.56	27.55
f8	+50°C	0.5H	0.115%(0.53M)	459.83	452.23	467.43	15.20	1.69	35.95	34.42	27.62
f9	+60°C	0.5H	0.245%(1.13M)	459.23	451.63	466.83	15.20	1.84	36.70	34.00	27.84
f10	+70°C	0.5H	0.288%(1.33M)	459.03	451.43	466.63	15.20	1.88	38.95	33.86	27.91
f11	+80°C	0.5H	0.332%(1.53M)	458.83	451.23	466.43	15.20	1.94	37.90	33.71	27.93

(3) Temperature VS Fo Frequency



(4) Makers



(5) HP-8714E Temperature Chamber



Result

PASS

溫度槽測試報告 (Temperature Aging Test Report)

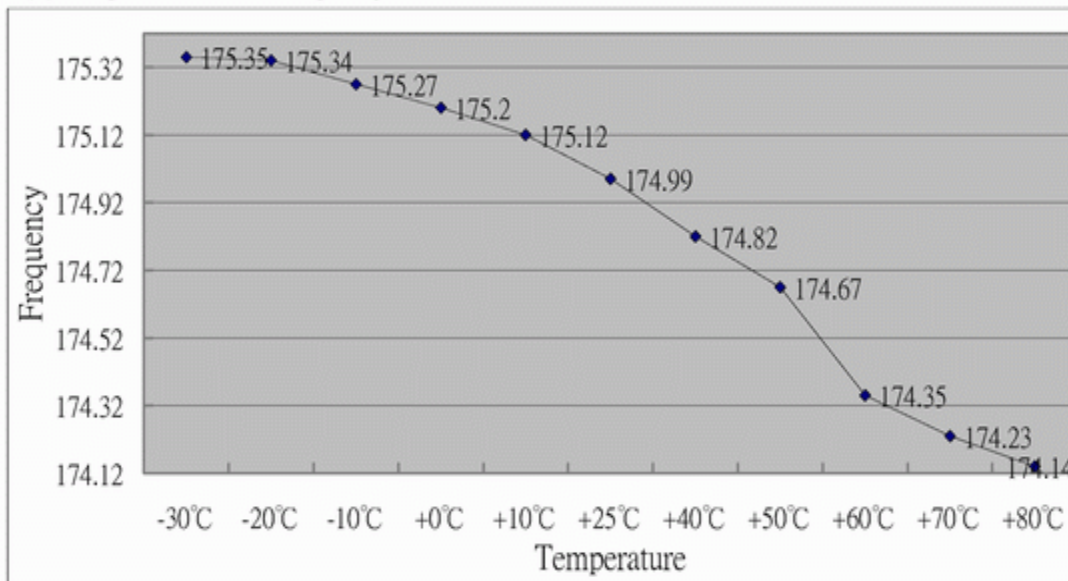
Parts Name : TD6730B-175M(A) (Double Tuning)

Date : JAN.31.2005

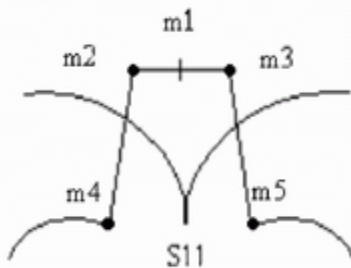
(1) Temperature & Time Process & Fo Frequency

	Temp °C	Time Age Hour	$\Delta f(\%)(\text{MHz})$ Temp. Draft (-30~+70°C) < Fo×0.5% (Tolerance)	Fo MHz	At -3dB MHz	At -3dB MHz	-3BW MHz	IL (dB)	S11 (dB)	Atten. Fo-20M (dB)	Atten. Fo+20M (dB)
f1	-30°C	1.5H	0.205%(0.36M)	175.35	178.10	172.60	5.50	2.09	27.52	32.85	43.19
f2	-20°C	0.5H	0.200%(0.35M)	175.34	178.14	172.54	5.60	2.13	28.80	32.85	43.32
f3	-10°C	0.5H	0.160%(0.28M)	175.27	178.06	172.48	5.58	2.22	29.23	32.74	43.48
f4	+0°C	0.5H	0.120%(0.21M)	175.20	177.98	172.42	5.56	2.27	27.88	32.69	43.67
f5	+10°C	0.5H	0.074%(0.13M)	175.12	177.92	172.32	5.60	2.31	27.85	32.65	43.84
f6	+25°C	0.5H	0.000%(0.00M)	174.99	177.78	172.20	5.58	2.40	29.36	32.57	44.13
f7	+40°C	0.5H	0.097%(0.17M)	174.82	177.62	172.02	5.60	2.48	29.98	32.40	44.50
f8	+50°C	0.5H	0.182%(0.32M)	174.67	177.46	171.88	5.58	2.56	32.97	32.31	44.94
f9	+60°C	0.5H	0.365%(0.64M)	174.35	177.14	171.56	5.58	2.70	34.41	32.12	45.92
f10	+70°C	0.5H	0.434%(0.76M)	174.23	177.02	171.44	5.58	2.83	33.72	32.09	45.54
f11	+80°C	0.5H	0.485%(0.85M)	174.14	176.92	171.36	5.56	2.91	35.89	32.00	44.53

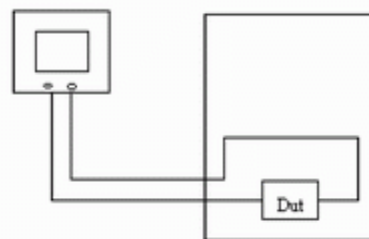
(2) Temperature VS Fo Frequency



(3) Makers



(4) HP-8714E Temperature Chamber



Result

PASS