

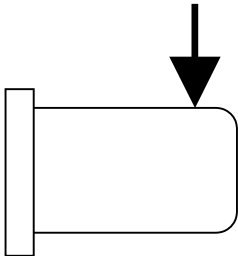
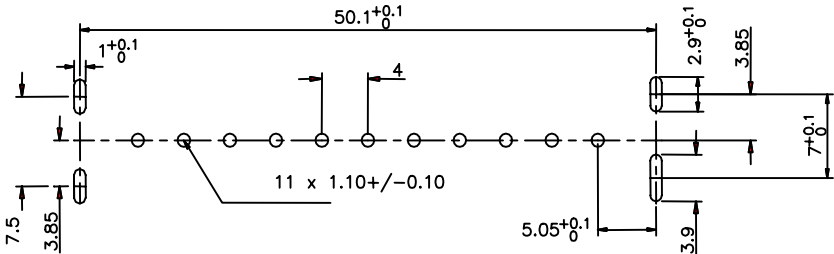
<div>朗诗格电子</div> <div>LONGSIGN ELECTRONICS Co.,Ltd.</div>		<div>PRODUCT SPECIFICATION</div> <div>产品规格说明书</div>		<div>型号/MODEL</div> <div>CWC-1053-V</div>		<div>页码/PAGE</div> <div>1</div>	
				<div>描述/DESCRIPTION</div> <div>电子调谐器/TUNER</div>			
<div>CWC-1053-V</div> <div>TUNER FOR COLOR TV</div> <div>彩色电视机用电子调谐器</div> <div>CUSTOMER APPROVAL</div> <div>客 户 承 认</div>							
B							
A	最初版本/Original Release						
REV.	描述/DESCRIPTION						
描述/DESCRIPTION				批准/APPROVAL		审核/CHECK	
彩色电视机用电子调谐器/TUNER FOR COLOR TV				May-05-2002		May-05-2002	
图号/DRAWING NO.						Nickyson	
修正版本/REVISIONS		设计/DESIGN					
		总页数/PAGES TOTAL				Huang Sir	
		12					

朗诗格电子 LONGSIGN ELECTRONICS Co.,Ltd.		PRODUCT SPECIFICATION 产品规格说明书	型号/MODEL CWC-1053-V	页码/PAGE 2
		描述/DESCRIPTION 电子调谐器/TUNER		
NO.	项目/ITEM	规格/SPECIFICATION		
1.	概要/GENERAL	The CWC-1053-V tuner belongs to the CWC-1053 family of tuners, which are designed to meet a wide range of applications.		
1.1	调谐系统/Tuning System	VS TUNER		
1.2	接收制式/Receiving System	systems PAL B/G & D/K		
1.3	接收频道/Receiving Channels	Standard system with hyper band		
		VHF Low : E2 ch ~ S10 ch (48.25 ~ 168.25MHz)		
		VHF High : S11 ch ~ S41 ch (175.25 ~ 463.25MHz)		
		UHF : E21 ch ~ E69 ch (471.25 ~ 863.25MHz)		
1.4	中频频率/Intermediate Frequency	System : PAL B/G & D/K Picture : 38.9 38.0 MHz Coolor : 34.47 33.47 MHz Sound : 33.4 31.5 MHz		
1.5	天线输入阻抗/ Antenna Input Impedance	VHF/UHF : 75 ohm unbalanced		
1.6	输出阻抗/Output Impedance	75 ohm unbalanced		
1.7	重量/Weight	Approximate: 40 grams		
1.8	连接端子/Connection	Antenna : iIEC jack CONNECTOR		
		<div><div>TUINER</div><div>U/V INPUT</div><div>TO TV IF</div></div>		
1.9	操作温度/Operating Temp	-15℃to+70℃(standard+25℃)		
1.10	储藏温度/Storage Temp	-20℃to+80℃(standard+25℃)		

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1.11	最大端子供给电压/Max Supply Volt to terminal				

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						电子调谐器/TUNER			
NO.	项目/ITEM	规格/SPECIFICATION						NOTES	
2.1	幅频特性曲线 AMPLITUDE RESPONSE		Min	Typ	Max	Unit	Condition		
					4	dB	Tilt of PC to top of curve		
					7		Tilt of SC to top of curve		
2.2	驻波系数 VSWR	VHF Low		5	7	dB	The worst point between fp and fs		
		VHF High		5	7				
		UHF		5	6				
2.3	功率增益 Power Gain	VHF Low	30	33		dB	GR=0		
		VHF High	28	32					
		UHF	30	35					
2.4	增益变化 Gain Variation	VHF Low		8	12	DB			
		VHF High		7	12				
		UHF		7	10				
2.5	增益衰减量 Gain Reduction	VHF Low	40	50		DB	When AGC voltage is fluctuated from 4.0V~0V		
		VHF High	40	50					
		UHF	35	40					
2.6	镜像抑制比 Image Rejection	VHF Low	55	60		DB	GR=0		
		VHF High	55	60					
		UHF	45	58					
2.7	中频抑制比 IF Rejection	VHF Low	50	60		DB	GR=0		
		VHF High	65	80					
		UHF	65	80					
2.8	噪声系数 Noise Figure	VHF Low		8	10	DB	GR=0		
		VHF High		5	9				
		UHF		8	10				

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NO.	项目/ITEM	规格/SPECIFICATION						NOTES
2.9	带内交扰调制 Cross Modulation -In band: Low band(n+/-2)		Min	Typ	Max	Unit	Condition	Spectrum-analyzer method 1KHz,30% Modulation
			75			dBu	GR=0	
			75			dBu		
2.10	彩色条拍打 Color Beat			50	70	dB		
2.11	输入端子辐射 ANT Radiation	0~1GHz			46	dBu	75 Ω Terminate	
		1~1.75GHz			54			
2.12	中频端子泄露 IF Leakage	VHF-Low			80			
		VHF-High			80	dBu	75 Ω Terminate	
		UHF			80			
2.13	电压引起本振 频率的变化 OSC instability				50	KHz	B +/-5%	
2.14	本振停振电压 OSC stop votage				4.5	V	B Voltage	

朗诗格电子 LONGSIGN ELECTRONICS Co.,Ltd.		PRODUCT SPECIFICATION 产品规格说明书	型号/MODEL CWC-1053-V	页码/PAGE 6
		描述/DESCRIPTION 电子调谐器/TUNER		
NO.	项目/ITEM	规格/SPECIFICATION		
3.	机械特性 MECHANICAL AND CONSTRUCTION CHARACTERISTICS			
3.1	端子插拔力 Holding Strength of ANT Jack	Initlal Inserting Force : Max 5.0Kg Extracting Force After 5 Cyclc: Min . 0.7 Kg		
3.2	端子强度 Terminal Strength	Vertical Direction : Min 2 Kg Folding-Strength : The terminals must not be damaged when bent left and right up to 45 ,4 time.		
3.3	IEC 插口破坏性强度 Destructive Strength of IEC Connector	Shall stand the force up to 15Kgf applied to the end <div> IEC connector</div>		
3.4	推荐整机 PCB 孔位尺寸 Recommended Hole for P.C.B.			

朗诗格电子		PRODUCT SPECIFICATION	型号/MODEL	页码/PAGE	
LONGSIGN ELECTRONICS Co.,Ltd.		产品规格说明书	CWC-1053-V		7
			描述/DESCRIPTION		
			电子调谐器/TUNER		
NO .	项目/ITEM	测试条件/Test Conditions		规格 /Specification	
4	可靠性 /RELIABILITY				
4.1	低温实验/Cold Test	- 40℃, 168 Hours- 40℃, 168 Hours		1. Power Gain: Initial Value +/-3 dB Max 2. Noise Figure : Initial Value +/-3 dB Max 3. There shall be no trouble on the practical peration	
4.2	高温实验/High Temperature Load Test	+ 60℃, 168 Hours ,Applied B+			
4.3	湿度实验/ Humidity Test	- 40℃, 95 % RH ,168 Hours			
4.4	湿度及温度实验 Humidity & Temperature Load Test	+ 40℃, 95 % RH ,168 Hours , Applied B+			
4.5	热冲击测试 Thermal Shock Test	- 40℃,+110℃,(30 minutes) 150 Cycles			
4.6	强制测试 Pct Test	Pressure 2.1 Kg/cm , 121℃, 100% RH 5HR		There shall be no trouble on the practical peration	
4.7	振动测试 Vibration Test	Frequency range from 5 to 55MHz, amplitude 2 mm , 40 minutes in each direction of X,Y,Z			
4.8	强电测试 Static Electricity Test	Applied 15 KV standard pulse 3 times at ANT . & IF terminals (200pF, 500 Ω)			
4.9	时间引起的本振漂移 Time OSC -Drift	40℃ Constand 30 min . after Switch ON 3 seconds specification for tuner only.		VHF: +/-500KHz UHF: +/-500KHz	
		Notes: After applied each test condition, leave sample in the standard test condition for 30 minutes , and then take measurements (the normal temperature & humidity)			

频率表/FREQUENCY TABLE

Unit: MHz

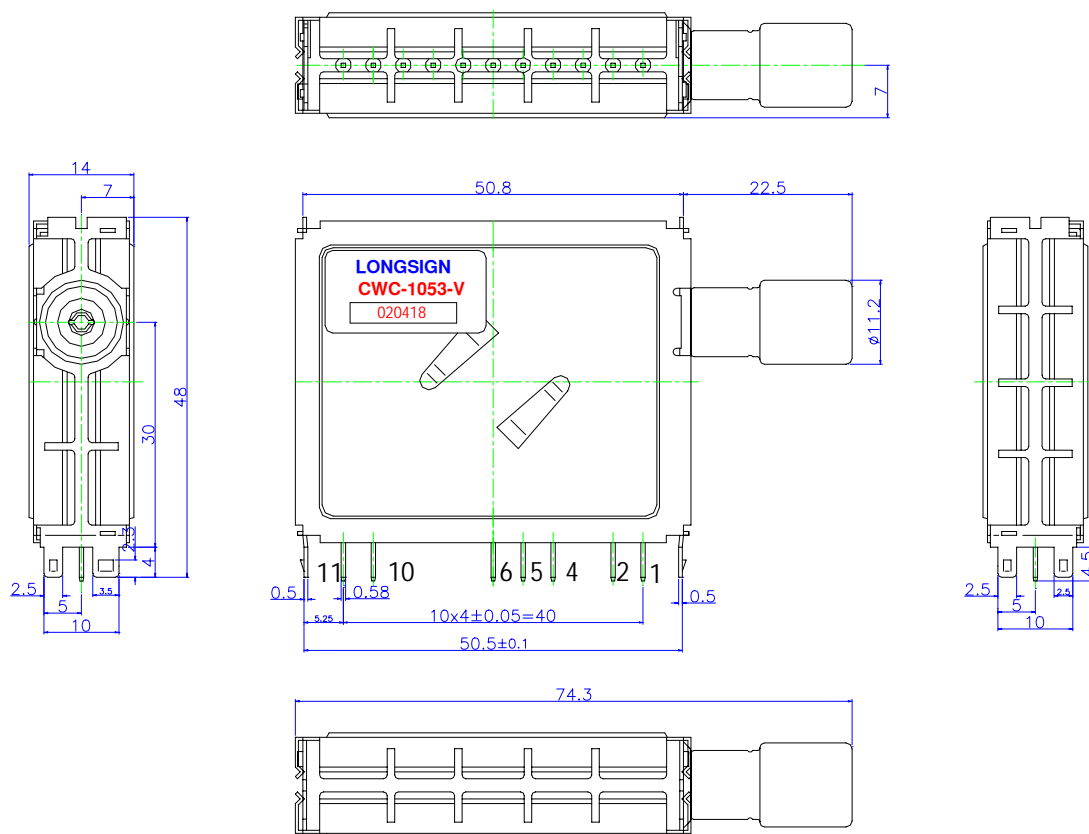
Band	Channel No.	Center Freq.	Freq. Range	Picture Freq.	Sound Freq.	Local Osc. Freq.	Image Freq.
波段	频道	中心频率	频率范围	图像频率	伴音频率	本振频率	镜像频率
VHF LOW	2	51	47 - 55	48.25	53.75	87.15	126.05
	3	58	54 - 62	55.25	60.75	94.15	133.05
	4	65	61 - 69	62.25	67.75	101.15	140.05
VHF HIGH	5	178	174 - 182	175.25	180.75	214.15	253.05
	6	185	181 - 189	182.25	187.75	221.15	260.05
	7	192	188 - 196	189.25	194.75	228.15	267.05
	8	199	195 - 203	196.25	201.75	235.15	274.05
	9	206	202 - 210	203.25	208.75	242.15	281.05
	10	213	209 - 217	210.25	215.75	249.15	288.05
	11	220	216 - 224	217.25	222.75	256.15	295.05
	12	227	223 - 231	224.25	229.75	263.15	302.05
UHF	21	474	470 - 478	471.25	476.75	510.15	549.05
	22	482	478 - 486	479.25	484.75	518.15	557.05
	23	490	486 - 494	487.25	492.75	526.15	565.05
	24	498	494 - 502	495.25	500.75	534.15	573.05
	25	506	502 - 510	503.25	508.75	542.15	581.05
	26	514	510 - 518	511.25	516.75	550.15	589.05
	27	522	518 - 526	519.25	524.75	558.15	597.05
	28	530	526 - 534	527.25	532.75	566.15	605.05
	29	538	534 - 542	535.25	540.75	574.15	613.05
	30	546	542 - 550	543.25	548.75	582.15	621.05
	31	554	550 - 558	551.25	556.75	590.15	629.05
	32	562	558 - 566	559.25	564.75	598.15	637.05
	33	570	566 - 574	567.25	572.75	606.15	645.05
	34	578	574 - 582	575.25	580.75	614.15	653.05
	35	586	582 - 590	583.25	588.75	622.15	661.05
	36	594	590 - 598	591.25	596.75	630.15	669.05
	37	602	598 - 606	599.25	604.75	638.15	677.05
	38	610	606 - 614	607.25	612.75	646.15	685.05
	39	618	614 - 622	615.25	620.75	654.15	693.05
	40	626	622 - 630	623.25	628.75	662.15	701.05
	41	634	630 - 638	631.25	636.75	670.15	709.05
	42	642	638 - 646	639.25	644.75	678.15	717.05
	43	650	646 - 654	647.25	652.75	686.15	725.05
	44	658	654 - 662	655.25	660.75	694.15	733.05
	45	666	662 - 670	663.25	668.75	702.15	741.05
	46	674	670 - 678	671.25	676.75	710.15	749.05
	47	682	678 - 686	679.25	684.75	718.15	757.05
	48	690	686 - 694	687.25	692.75	726.15	765.05
	49	698	694 - 702	695.25	700.75	734.15	773.05
	50	706	702 - 710	703.25	708.75	742.15	781.05
	51	714	710 - 718	711.25	716.75	750.15	789.05
	52	722	718 - 726	719.25	724.75	758.15	797.05
	53	730	726 - 734	727.25	732.75	766.15	805.05
	54	738	734 - 742	735.25	740.75	774.15	813.05

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				电子调谐器/TUNER			
频率表/FREQUENCY TABLE							
Unit: MHz							
Band	Channel NO.	Center Freq.	Freq. Range	Picture Freq.	Sound Freq.	Local OSC Freq.	Image Freq.
波段	频道	中心频率	频率范围	图像频率	伴音频率	本振频率	镜像频率
UHF	55	746	742 - 750	743.25	748.75	782.15	821.05
	56	754	750 - 758	751.25	756.75	790.15	829.05
	57	762	758 - 766	759.25	764.75	798.15	837.05
	58	770	766 - 774	767.25	772.75	806.15	845.05
	59	778	774 - 782	775.25	780.75	814.15	853.05
	60	786	782 - 790	783.25	788.75	822.15	861.05
	61	794	790 - 798	791.25	796.75	830.15	869.05
	62	802	798 - 806	799.25	804.75	838.15	877.05
	63	810	806 - 814	807.25	812.75	846.15	885.05
	64	818	814 - 822	815.25	820.75	854.15	893.05
	65	826	822 - 830	823.25	828.75	862.15	901.05
	66	834	830 - 838	831.25	836.75	870.15	909.05
	67	842	838 - 846	839.25	844.75	878.15	917.05
	68	850	846 - 854	847.25	852.75	886.15	925.05
	69	858	854 - 862	855.25	860.75	894.15	933.05
VHF LOW	E2	51	47 - 55	48.25	53.75	87.15	126.05
	E3	58	54 - 62	55.25	60.75	94.15	133.05
	E4	65	61 - 69	62.25	67.75	101.15	140.05
	X	72	68 - 76	69.25	74.75	108.15	147.05
	Y	79	75 - 83	76.25	81.75	115.15	154.05
	Z	86	82 - 90	83.25	88.75	122.15	161.05
	Z+1	93	89 - 97	90.25	95.75	129.15	168.05
	Z+2	100	96 - 104	97.25	102.75	136.15	175.05
	S1	108	104 - 112	105.25	110.75	144.15	183.05
	S2	115	111 - 119	112.25	117.75	151.15	190.05
	S3	122	118 - 126	119.25	124.75	158.15	197.05
	S4	129	125 - 133	126.25	131.75	165.15	204.05
	S5	136	132 - 140	133.25	138.75	172.15	211.05
	S6	143	139 - 147	140.25	145.75	179.15	218.05
	S7	150	146 - 154	147.25	152.75	186.15	225.05
S8	157	153 - 161	154.25	159.75	193.15	232.05	
S9	164	160 - 168	161.25	166.75	200.15	239.05	
S10	171	167 - 175	168.25	173.75	207.15	246.05	
VHF HIGH	E5	178	174 - 182	175.25	180.75	214.15	253.05
	E6	185	181 - 189	182.25	187.75	221.15	260.05
	E7	192	188 - 196	189.25	194.75	228.15	267.05
	E8	199	195 - 203	196.25	201.75	235.15	274.05
	E9	206	202 - 210	203.25	208.75	242.15	281.05
	E10	213	209 - 217	210.25	215.75	249.15	288.05
	E11	220	216 - 224	217.25	222.75	256.15	295.05
	E12	227	223 - 231	224.25	229.75	263.15	302.05
S11	234	230 - 238	231.25	236.75	270.15	309.05	

频率表/FREQUENCY TABLE

Unit: MHz

Band	Channel NO.	Center Freq.	Freq. Range	Picture Freq.	Sound Freq.	Local OSC Freq.	Image Freq.
波段	频道	中心频率	频率范围	图像频率	伴音频率	本振频率	镜像频率
VHF HIGH	S12	241	237 - 245	238.25	243.75	277.15	316.05
	S13	248	244 - 252	245.25	250.75	284.15	323.05
	S14	255	251 - 259	252.25	257.75	291.15	330.05
	S15	262	258 - 266	259.25	264.75	298.15	337.05
	S16	269	265 - 273	266.25	271.75	305.15	344.05
	S17	276	272 - 280	273.25	278.75	312.15	351.05
	S18	283	279 - 287	280.25	285.75	319.15	358.05
	S19	290	286 - 294	287.25	292.75	326.15	365.05
	S20	297	293 - 301	294.25	299.75	333.15	372.05
	S21	306	302 - 310	303.25	308.75	342.15	381.05
	S22	314	310 - 318	311.25	316.75	350.15	389.05
	S23	322	318 - 326	319.25	324.75	358.15	397.05
	S24	330	326 - 334	327.25	332.75	366.15	405.05
	S25	338	334 - 342	335.25	340.75	374.15	413.05
	S26	346	342 - 350	343.25	348.75	382.15	421.05
	S27	354	350 - 358	351.25	356.75	390.15	429.05
	S28	362	358 - 366	359.25	364.75	398.15	437.05
	S29	370	366 - 374	367.25	372.75	406.15	445.05
	S30	378	374 - 382	375.25	380.75	414.15	453.05
	S31	386	382 - 390	383.25	388.75	422.15	461.05
	S32	394	390 - 398	391.25	396.75	430.15	469.05
	S33	402	398 - 406	399.25	404.75	438.15	477.05
	S34	410	406 - 414	407.25	412.75	446.15	485.05
	S35	418	414 - 422	415.25	420.75	454.15	493.05
	S36	426	422 - 430	423.25	428.75	462.15	501.05
	S37	434	430 - 438	431.25	436.75	470.15	509.05
	S38	442	438 - 446	439.25	444.75	478.15	517.05
	S39	450	446 - 454	447.25	452.75	486.15	525.05
	S40	458	454 - 462	455.25	460.75	494.15	533.05
	S41	466	462 - 470	463.25	468.75	502.15	541.05



1	2	3	4	5	6	7	8	9	10	11	M1~M4
AGC	VT	NC	B1	B2	+B	NC	NC	NC	GND	IF OUT	GND

LONGSIGN SHENZHEN LONGSIGN
ELECTRONICS CO.,LTD.

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		电子调谐器/TUNER	
<div>CW C - 1 0 5 3 - V</div> <div><div>VT 调谐电压方式:</div><div>PLL: 频率合成式</div><div>空 : 电压合成式</div><div>V : 内置波段开关电压合成</div><div>D : 双中频平衡输出</div></div> <div><div>型号版本区分(AS 悬空)</div></div> <div><div>接插头及波段控制:</div><div>1: 波段控制低电流, IEC 插头, 长: 21.0;</div><div>2: 正常, RCA 插头;</div><div>3: 正常, IEC 插头, 长: 21.0;</div><div>4: 正常, F 插头;</div></div> <div><div>供电电压:</div><div>5: 5V</div><div>9: 9V</div><div>2: 12V</div></div> <div><div>插头到整机 PCB 的高度:</div><div>0: 30mm</div><div>1: 32mm</div><div>2: 34mm</div><div>3: 37mm</div></div> <div><div>IC 型号区分:</div></div> <div><div>制式:</div><div>A: America,M 制系统, NTSC 彩色制, 图象中频: 45.75MHz</div><div>C: China,D/K 制系统, PAL 彩色制, 图象中频: 38.0MHz</div><div>E: Europe,B/G 制系统, PAL 彩色制, 图象中频: 38.9MHz</div><div>I: English or Hongkong I 制系统, PAL 彩色制, 图象中频: 39.5MHz</div></div> <div><div>频率覆盖:</div><div>W: 470MHz 带 CATV 频道;</div><div>S: 正常电视频道;</div></div> <div><div>形状:</div><div>C/E: C 型, 国际标准型;</div><div>D: D 型.</div></div>			

