



承 認 書

SPECIFICATION FOR APPROVAL

送 樣 日 期：111 年 5 月 3 日 APLNO：702205001

客 戶 名 稱：大鵬 客 戶 代 碼：D09

客 戶 產 品 料 號：06EZBHEFRP210 版 本：

(ZBH-ERF-P2 V1.0)

晟 鈦 產 品 料 號 P1495A 送 樣 數 量：

依 據 M/O NO： 送 樣 次 數：第 次

客 戶 承 認 欄			晟 鈦 確 認 欄		
核 准	審 核	承 認	核 准	審 核	制 定
			劉麗秋	江宇捷	李昭儀

晟 鈦 股 份 有 限 公 司

CHEER TIME ENTERPRISE CO.,LTD.

地 址：新北市新莊區瓊林南路 305 巷 2 號

NO. 2, LANE 305, CHYONG LIN S. RD., HSIN CHUANG, TAIWAN, R. O. C

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產品種類	☐ 無鉛噴錫 ☐ ENTEK ☐ 裸銅 ☐ 印碳膜 ☐ 印藍膠 ☐ 其它： ☐ 噴錫+金手指 ☐ 鍍金 ☒ 化金； 金鍍厚度要求：金 <u>2</u> μ " 鍍 <u>150</u> μ "	
產品層別	☐ 單面板 ☐ 雙面板 ☒ 四層板 ☐ 六層板 ☐ 其他：_____	
產品尺寸	成型尺寸： <u>91.18</u> mm× <u>80</u> mm 單片尺寸： <u>32</u> mm× <u>29.06</u> mm	
UL 認可	FILE NO：E142470 Flame Class： ☐ 94HB ☒ 94V0 TYPE： ☐ 55 ☐ 66 ☐ 88 ☒ 99 ☐ 其他：_____	
基 板	基板材質：_____FR4_____板厚： <u>1.0</u> mm 廠牌/等級： ☐ Isola UL NO:E41625 ☐ 其他 UL NO：_____ ☐ Nan Ya UL NO:E98983	
線 路	內層： ☐ 濕膜 ☒ 乾膜 外層： ☐ 濕膜 ☒ 乾膜	
防 焊	焊錫面： ☒ 綠色 ☐ 藍色 ☐ 其它：_____ 零件面： ☒ 綠色 ☐ 藍色 ☐ 其它：_____ 廠牌/等級：_____UL NO：_____	
文 字	焊錫面： ☒ 白色 ☐ 黑色 ☐ 其它：_____ 零件面： ☒ 白色 ☐ 黑色 ☐ 其它：_____ 廠牌/等級：_____	
成 型	☒ CNC ☐ 沖床 ☒ V-CUT <u>3</u> 刀 ☐ 斜邊	

項 次	隨 附 資 料	頁 次
1	底片_____份 生產件本體_____PCS	
2	GERBER 圖面 ☒ 線路圖 ☒ 防焊圖 ☒ 文字圖 ☒ 孔徑圖 ☒ 成型圖	
3	UL 安規資料	
4	檢驗報告	
5	其它：_____ _____ _____ _____ _____ _____	

Total	Frequency (MHz)	2300	2310	2320	2330	2340	2350	2360	2370	2380	2390	2400	2410	2420	2430	2440	2450	2460	2470	2480	2490	2500	2510	2520	2530	2540	2550	2560	2570	2580	2590	2600		
	Point Values																																	
	Ant. Port Input Pwr. (dBm)		0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	Tot. Rad. Pwr. (dBm)	-5.13205	-5.21531	-5.01915	-5.03909	-4.82678	-4.74532	-4.32562	-4.35216	-4.02199	-4.25433	-3.9986	-4.23399	-4.15259	-4.15394	-3.92036	-4.03102	-4.02225	-4.0843	-4.12169	-4.171	-3.89494	-3.93682	-3.62968	-3.43103	-3.12934	-3.07685	-2.9622	-3.03521	-2.98318	-2.87206	-2.80806		
	Peak EIRP (dBm)	0.637954	0.441841	0.454149	0.444717	0.929541	1.31372	1.74192	1.68091	1.96847	1.38579	1.88957	1.21305	1.2389	1.16164	1.16183	1.09119	1.03407	0.944754	1.09143	1.16276	1.57733	1.50467	1.95238	2.21882	2.67555	2.86445	3.05264	3.12139	3.21658	3.46896	3.66754		
	Directivity (dB)	5.77	5.65715	5.4733	5.4838	6.05905	6.06753	6.09045	6.06753	6.09045	5.64011	5.88816	5.44703	5.39149	5.31558	5.0822	5.12221	5.05632	5.02906	5.21312	5.33736	5.47226	5.44149	5.58206	5.64985	5.80489	5.9413	6.01483	6.1566	6.19976	6.34102	6.4756		
	Efficiency (dB)	-5.13205	-5.21531	-5.01915	-5.03909	-4.82678	-4.74532	-4.32562	-4.35216	-4.02199	-4.25433	-3.9986	-4.23399	-4.15259	-4.15394	-3.92036	-4.03102	-4.02225	-4.0843	-4.12169	-4.171	-3.89494	-3.93682	-3.62968	-3.43103	-3.12934	-3.07685	-2.9622	-3.03521	-2.98318	-2.87206	-2.80806		
	Efficiency (%)	30.6757	30.0932	31.4837	31.3395	32.9095	33.5326	36.935	36.71	39.6097	37.5463	39.8236	37.7226	38.4363	38.2423	40.5475	39.5274	39.6073	39.0454	38.7107	38.2737	40.7855	40.3941	43.3543	45.3834	48.6481	49.2396	50.5569	49.714	50.3132	51.6171	52.3834		
	Gain (dBi)	0.637954	0.441841	0.454149	0.444717	0.929541	1.31372	1.74192	1.68091	1.96847	1.38579	1.88957	1.21305	1.2389	1.16164	1.16183	1.09119	1.03407	0.944754	1.09143	1.16276	1.57733	1.50467	1.95238	2.21882	2.67555	2.86445	3.05264	3.12139	3.21658	3.46896	3.66754		
	NHPRP $\pm$ Pi/4 (dBm)	-6.38383	-6.4651	-6.24644	-6.26312	-6.07263	-5.98132	-5.54611	-5.54713	-5.1562	-5.33398	-5.07913	-5.28761	-5.20282	-5.20414	-4.97557	-5.08115	-5.10285	-5.17261	-5.23414	-5.29396	-5.05803	-5.11773	-4.83797	-4.67242	-4.38538	-4.325	-4.22814	-4.3157	-4.27158	-4.14666	-4.10341		
	NHPRP $\pm$ Pi/6 (dBm)	-8.12638	-8.19992	-7.94981	-7.96396	-7.78294	-7.67451	-7.24256	-7.23225	-6.80048	-6.93703	-6.72634	-6.91559	-6.8177	-6.80989	-6.58944	-6.68495	-6.74073	-6.80998	-6.87079	-6.93197	-6.71159	-6.77668	-6.50151	-6.36662	-6.07899	-5.99434	-5.9084	-6.0098	-5.97675	-5.82671	-5.80951		
	NHPRP $\pm$ Pi/8 (dBm)	-9.42718	-9.50161	-9.2456	-9.25569	-9.07029	-8.93792	-8.51536	-8.50706	-8.06011	-8.18006	-7.99594	-8.19601	-8.0907	-8.0779	-7.85525	-7.94256	-8.02748	-8.10216	-8.15674	-8.22259	-7.99277	-8.06489	-7.77359	-7.6452	-7.34459	-7.24526	-7.1624	-7.263	-7.23217	-7.05594	-7.04613		
	Upper Hem. PRP (dBm)	-9.0863	-9.15671	-8.97299	-9.00817	-8.85437	-8.83063	-8.37612	-8.37297	-7.99529	-8.22876	-8.03174	-8.20276	-8.14521	-8.11285	-7.87351	-7.9604	-8.01179	-8.05329	-8.06633	-8.10691	-7.86434	-7.92665	-7.66057	-7.44488	-7.1312	-7.07139	-6.95944	-7.00182	-6.93031	-6.77957	-6.69967		
	Lower Hem. PRP (dBm)	-7.36739	-7.45932	-7.25476	-7.26446	-7.01344	-6.89462	-6.49734	-6.54326	-6.24454	-6.47613	-6.18163	-6.45957	-6.36228	-6.38614	-6.15644	-6.28318	-6.23398	-6.30974	-6.3635	-6.41872	-6.1201	-6.14836	-5.81417	-5.6267	-5.33292	-5.28528	-5.16883	-5.26225	-5.22331	-5.13915	-5.08607		
	NHPRP4 / TRP Ratio (dB)	-1.25178	-1.24979	-1.22729	-1.22404	-1.24585	-1.236	-1.2205	-1.19497	-1.13422	-1.07966	-1.08053	-1.05362	-1.05023	-1.0502	-1.0552	-1.05013	-1.0806	-1.08831	-1.11245	-1.12296	-1.16309	-1.18092	-1.20829	-1.24139	-1.25604	-1.24815	-1.26595	-1.28049	-1.2884	-1.2746	-1.29535		
	NHPRP4 / TRP Ratio (%)	74.9586	74.9931	75.3826	75.4391	75.0611	75.2316	75.5006	75.9456	77.0155	77.9892	77.9735	78.4581	78.5194	78.52	78.4295	78.5211	77.9722	77.834	77.4024	77.2153	76.5052	76.1918	75.7131	75.1383	74.8852	75.0214	74.7146	74.4648	74.3293	74.5659	74.2105		
	Near Horz. TRP for $\pm$ Pi/4 (dBm)	-4.87868	-4.95995	-4.74129	-4.75797	-4.56748	-4.47617	-4.04096	-4.04198	-3.65105	-3.82883	-3.57398	-3.78246	-3.69767	-3.69899	-3.47042	-3.576	-3.5977	-3.66746	-3.72899	-3.78881	-3.55288	-3.61258	-3.33282	-3.16727	-2.88023	-2.81985	-2.72299	-2.81055	-2.76643	-2.64151	-2.59826		
	NHPRP6 / TRP Ratio (dB)	-2.99433	-2.98461	-2.93066	-2.92487	-2.95616	-2.92918	-2.91694	-2.88009	-2.77849	-2.6827	-2.72774	-2.6816	-2.66512	-2.65596	-2.66907	-2.65393	-2.71848	-2.72568	-2.7491	-2.76098	-2.81666	-2.83996	-2.87184	-2.93558	-2.94965	-2.91748	-2.94621	-2.97458	-2.99357	-2.95465	-3.00145		
	NHPRP6 / TRP Ratio (%)	50.1842	50.2967	50.9254	50.9932	50.6273	50.9427	51.0865	51.5218	52.7413	53.9175	53.3612	53.9312	54.1363	54.2506	54.087	54.2759	53.4751	53.3865	53.0995	52.9544	52.2799	52.0013	51.6198	50.8676	50.7032	51.0801	50.7434	50.4129	50.1929	50.6449	50.1019		
	Near Horz. TRP for $\pm$ Pi/6 (dBm)	-5.11608	-5.18962	-4.93951	-4.95366	-4.77264	-4.66421	-4.23226	-4.22195	-3.79018	-3.92673	-3.71604	-3.90529	-3.8074	-3.79959	-3.57914	-3.67465	-3.73043	-3.79968	-3.86049	-3.92167	-3.70129	-3.76638	-3.49121	-3.35632	-3.06869	-2.98404	-2.8981	-2.9995	-2.96645	-2.81641	-2.79921		
	NHPRP8 / TRP Ratio (dB)	-4.29513	-4.2863	-4.22645	-4.21661	-4.24351	-4.19259	-4.18975	-4.15491	-4.03813	-3.92574	-3.99735	-3.96202	-3.93812	-3.92396	-3.93489	-3.91155	-4.00523	-4.01786	-4.03505	-4.05159	-4.09783	-4.12807	-4.14392	-4.21417	-4.21525	-4.16841	-4.2002	-4.22779	-4.24899	-4.18388	-4.23807		
	NHPRP8 / TRP Ratio (%)	37.1952	37.2709	37.7881	37.8739	37.64	38.0838	38.1088	38.4158	39.4628	40.4973	39.8351	40.1604	40.3821	40.5139	40.412	40.6299	39.7628	39.6474	39.4908	39.3406	38.9239	38.6539	38.5131	37.8951	37.8857	38.2965	38.0172	37.7764	37.5925	38.1603	37.6871		
	Near Horz. TRP for $\pm$ Pi/8 (dBm)	-5.25558	-5.33001	-5.074	-5.08409	-4.89869	-4.76631	-4.34376	-4.33546	-3.88851	-4.00846	-3.82434	-4.0244	-3.9191	-3.90629	-3.68365	-3.77096	-3.85588	-3.93055	-3.98513	-4.05098	-3.82117	-3.89328	-3.60199	-3.4736	-3.17299	-3.07366	-2.99079	-3.0914	-3.06057	-2.88434	-2.87453		
	UHPRP / TRP Ratio (dB)	-3.95425	-3.9414	-3.95384	-3.96909	-4.02759	-4.08531	-4.0505	-4.02081	-3.9773	-3.97444	-4.03314	-3.96877	-3.99262	-3.95891	-3.95315	-3.92938	-3.98955	-3.96899	-3.94464	-3.93591	-3.96941	-3.98983	-4.03089	-4.01385	-4.00186	-3.99454	-3.99724	-3.9666	-3.94713	-3.9075	-3.89162		
	UHPRP / TRP Ratio (%)	40.2324	40.3515	40.2361	40.0951	39.5586	39.0364	39.3504	39.6204	40.0562	40.0458	39.5081	40.098	39.8784	40.1891	40.2425	40.4634	39.9067	40.096	40.3214	40.4026	40.0921	39.904	40.0216	39.9094	39.5286	39.684	39.7936	39.8608	39.836	40.118	40.2983	40.8168	
	Upper Hem.Total Radiated Pwr	-6.076	-6.14641	-5.96269	-5.99787	-5.84407	-5.82033	-5.36582	-5.36267	-4.98499	-5.21846	-5.02144	-5.19246	-5.13491	-5.10255	-4.86321	-4.9501	-5.00149	-5.04299	-5.05603	-5.09661	-4.85404	-4.91635	-4.65027	-4.43458	-4.1209	-4.06109	-3.94914	-3.99152	-3.92001	-3.76927	-3.68937		
	LHPRP / TRP Ratio (dB)	-2.23534	-2.244	-2.23561	-2.22538	-2.18666	-2.14929	-2.17112	-2.22256	-2.2218	-2.18303	-2.22559	-2.2097	-2.2322	-2.23608	-2.25216	-2.21174	-2.22544	-2.24181	-2.24773	-2.22516	-2.21155	-2.1845	-2.19567	-2.20358	-2.20843	-2.20663	-2.22704	-2.24013	-2.26709	-2.27801			
	LHPRP / TRP Ratio (%)	59.7676	59.6485	59.7639	59.9049	60.4414	60.9636	60.6496	60.3796	59.9438	59.9542	60.4919	59.902	60.1216	59.8109	59.7575	59.5366	60.0933	59.904	59.6786	59.5974	59.9079	60.096	60.4714	60.316	60.2064	60.1392	60.164	59.882	59.7017	59.3323	59.1832		
	Lower Hem. Total Radiated Pwr	-4.35709	-4.44902	-4.24446	-4.25416	-4.00314	-3.88432	-3.48704	-3.53296	-3.23424	-3.46583	-3.17133	-3.44927	-3.35198	-3.37584	-3.14614	-3.27288	-3.22368	-3.29944	-3.3532	-3.40842	-3.1098	-3.13806	-2.80387	-2.6164	-2.32262	-2.27498	-2.15853	-2.25195	-2.21301	-2.12885	-2.07577		
	FRP (dBm) (theta = 0 to 120)	-6.7925	-6.87655	-6.6624	-6.71281	-6.52187	-6.4549	-6.00265	-6.018	-5.61863	-5.81652	-5.57955	-5.78912	-5.69647	-5.68967	-5.45214	-5.5472	-5.56462	-5.62711	-5.66711	-5.72609	-5.47823	-5.53004	-5.24631	-5.07129	-4.77735	-4.71505	-4.61071	-4.69081	-4.64375	-4.50875	-4.45808		
	Front/Back Ratio (dB)	5.38216	5.15672	4.66164	4.66636	4.90715	5.7352	5.83965	5.83558	5.96577	5.84099	6.32823	6.33198	6.29267	6.25974	5.55189	5.48696	5.4939	5.28295	4.44094	4.56345	4.40746	4.67808	5.18428	4.89623	4.86258	4.90106	5.34862	5.59282	5.5886	6.2034	6.05924		
	Phi BW ()	32	32	34	53	51	50	52	63	101	108	102	108	108	109	109	108	108	108	108	108	105	104	103	104	83	76	74	73	32	31	30	29	28
	#NAME?	22	21	22	41	38	37	38	49	87	93	87	93	92	93	93	93	93	94	92	92	91	92	72	66	64	63	22	21	20	19	18		
	#NAME?	10	11	12	12	13	13	14	14	14	15	15	16	16	16	16	15	15	14	13	12	12	12	11	10	10	10							

