

## Teledyne / Cougar Cross Reference List

Teledyne Cougar	API	Teledyne Cougar	API	Teledyne Cougar	API	Teledyne Cougar	API
AC105	TM7105	ACP16025	BXHF1108	ACP18609	BXHF1125	A2CP12028	BXHF1143
ACH107	TM7207	AC540	TM5101	AC1063	TM9163	AC2092	TM9092
AP108	TM6108	AC541	TM5110	AC1066	TM9366	AC2348	TM9748
AP148	TM6148	AC542	TM6147	AC1068	TM9368	AC2366	TM9343
AC251	TM7570	AC543	TM6543	AC1069	TM9369	AC2426	TM9342
AC262	TM9262	AC544	TM6544	AC1082	TM9107	AP2509	TM9759
AC263	TM9263	AC545	TM6645	AR1094	TR9794	AC2546	TM9546
AC271	TM7270	AC547	TM6557	AC1215	TM7215	AC2554	TM9754
AC272	TM7172	AC548	TM6547	AC1218	TM9340	AC2564	TM9704
AC273	TM7370	AC555	TM6416	AC1219	TM9339	AC2577	TM9777
AC281	TM7481	AC556	TM6576	AC1226	TM9337	AC2578	TM9345
AC282	TM7182	AC557	TM6516	AC1228	TM9344	AR2584	TM9784
AC293	TM7193	AC558	TM6545	AC1264	TM9164	AR2589	TR7589
AP294	TM7294	AC559	TM6655	AC1266	TM9166	AP3007	TM9307
AC305	TM7147	AP561	TM6661	AC1269	TM9269	AP3008	TM9308
AC345	TM7145	AC564	TM6664	AP1309	TM9769	AP3009	TM9309
AC347	TM7347	AC566	TM6524	AC1523	TM9523	AP3028	QBH-4028
AP348	TM7148	AC572	TM6520	AC1525	TM9225	AC3056	TM9356
AR356	TR7256	AC573	TM6573	AC1526	TM9126	AR3056	TR9156
AC378	TM7278	AC575	TM6575	AC1527	TM9127	AC3057	TM9057
AC379	TM7279	AC576	TM6276	AC1528	TM9128	AC3064	TM9064
AC380	TM7381	AC577	TM6577	AC1529	TM9329	AR3069	QBH-4037
AC381	TM7281	AC580	TM6517	AP1532	TM9785	AP3509	TM9509
AC382	TM7282	AC581	TM6581	AC1569	TM7569	AC3547	TM9547
AC383	TM6683	AC582	TM6582	AC1582	TM9328	AR3569	TR9569
AC386	TM7386	AC583	TM6583	AC1586	TM9524	AC3579	TM9579
AP388	TM7388	AP719	TM9019	AP2008	TM9708	AR4029	TR9429
AP389	TM7189	AC751	TM9751	AP2009	TM9709	AC4041	TM9441
AC391	TM7291	AC829	TM6345	AC2017	TM9317	AC4045	TM9445
AC437	TM6587	AC838	TM9183	AC2023	TM9322	AP4048	TM9448
AP448	TM6448	AC847	TM9147	AC2025	TM9341	AR4048	TR9048
AC453	TM6443	AC848	TM9148	AC2034	TM9134	AC4054	TM9454
AC457	TM6444	AC936	TM9192	AR2036	TR9036	AC4056	TM9456
AC487	TM6487	AC986	TM9186	AC2037	TM9137	AC4064	TM9464
AC501	TM6501	AC1012	TM9102	AC2038	TM9138	AC4066	TM9066
AC505	TM6505	AC1017	TM9117	AC2039	TM9139	AC4079	TM9479
AC508	TM6558	AC1018	TM9118	AC2046	TM9146	AC4086	TM9486
AC509	TM6509	AC1019	TM9319	AC2056	TM9056	AC4088	TM9488
AC513	TM6675	AC1022	TM9311	AC2058	TM9728	AS4221	TN9421
AC514	TM6614	AC1035	TM9335	AC2066	TM9266	AC6066	QBH-5729
AC518	TM6526	AC1036	TM9113	AR2066	TR9466	GC2001	TG9001
AC519	TM6619	AC1038	TM9338	AR2067	TR9067	GC2530	TG9030
AC524	TM6574	AC1054	TM9325	AC2075	TM9725	LA507	TML9002
AC525	TM6645	AP1059	TM9359	AC2078	TM9778	LA1017	TML9017
AC536	TM6654	AP1060	TM9360	AC2091	TM9091	LC1501	TL9013
ACP16016	BXHF1106	ACP18605	BXHF1123	A2CP12024	BXHF1141	LC1502	TL9014
ACP16021	BXHF1107	ACP18606	BXHF1124	A2CP12026	BXHF1142	LG2001	TL9003

## Teledyne / Cougar Cross Reference List

Teledyne Cougar	API	Teledyne Cougar	API	Teledyne Cougar	API	Teledyne Cougar	API
A2CP6239	BXHF1158	A2CP18221	BXHF1120	ACP12013	BXHF1137	A2CP14639	BXHF1155
AS7004	BXHF1159	A2CP18225	BXHF1121	ACP12015	BXHF1138	A2CP6120	BXHF1156
ACP7019	BXHF1160	ACP18603	BXHF1122	ACP12017	BXHF1139	PSA-6232	BXHF1157
A2CP16212	BXHF1109	ACP18610	BXHF1126	A2CP12029	BXHF1144	A3CP7029	BXHF1161
A2CP16216	BXHF1110	A2CP18615	BXHF1127	ACP14012	BXHF1145	AS8002	BXHF1162
A2CP16221	BXHF1111	A2CP18620	BXHF1128	ACP14016	BXHF1146	ACP8017	BXHF1163
A2CP16225	BXHF1112	A2CP18625	BXHF1129	ACP14021	BXHF1147	A3CP8027	BXHF1164
ACP17149	BXHF1113	A2CP18629	BXHF1130	ACP14025	BXHF1148	ACP8036	BXHF1165
ACP18012	BXHF1114	ACP20012	BXHF1131	ACP14029	BXHF1149	ACP8037	BXHF1166
ACP18015	BXHF1115	ACP20015	BXHF1132	A2CP14212	BXHF1150	ACP8039	BXHF1167
ACP18021	BXHF1116	ACP20215	BXHF1133	A2CP14216	BXHF1151	A3CP8048	BXHF1168
ACP18025	BXHF1117	ACP11039	BXHF1134	A2CP14221	BXHF1152	A3CP8049	BXHF1169
A2CP18212	BXHF1118	A2CP11039	BXHF1135	A2CP14225	BXHF1153	AC1037	TM6145
A2CP18216	BXHF1119	A2CP11049	BXHF1136	A2CP14229	BXHF1154	AC107	TM7207
ACP12019	BXHF1140	ACP16012	BXHF1105	AP561	TM6661 *	AC2088	TM7088
AC588	TM6588						

API Technologies offers form, fit and function drop-in replacements for the standard products within these Cross Reference Lists. Packages for each model are identical to the original manufacturer's package, including pin assignments and temperature ranges. If you would like to receive a competitor cross for a model not on this list, please submit a cross-reference request at <http://micro.apitech.com/xref.asp> and a member of our team will get in touch with you to discuss how API Technologies may be able to provide you with a comparable product model, with better pricing and faster delivery.

## Teledyne/Cougar (Avantek) Cross Reference List

Teledyne /Cougar (Avantek)	API	Teledyne /Cougar (Avantek)	API	Teledyne /Cougar (Avantek)	API	Teledyne /Cougar (Avantek)	API
AFC330	TKG9330	UTC11-102	BX1559-4	UTO504	TM6704	UTO1006	TM9106
AGC553	TMG9553	UTC11-108	BX1558-4	UTO505	TM6705	UTO1007	TM9107
GPD110	CZ8110	UTC12-104	BX2531-4	UTO507	TM6507	UTO1011	TM9111
GPD120	CZ8120	UTD2001	TMJ9901	UTO509	TM6509	UTO1012	TM9312
GPD130	CZ8130	UTD2002	TMJ9902	UTO510	TM6510	UTO1013	TM9313
GPD201	CZ8201	UTD2004	TMJ9904	UTO511	TM6511	UTO1023	QBH-1423
GPD202	CZ8202	UTD1000	TMJ9910	UTO512	TM6512	UTO1024	QBH-1424
GPD251	CZ8251	UTF015	TG9015	UTO513	TM6513	UTO1033	TM9333
GPD310	CZ8310	UTF025	TG9025	UTO514	TM6514	UTO1043	TM9143
GPD320	CZ8320	UTF030	TG9030	UTO515	TM6515	UTO1044	TM9144
GPD330	CZ8330	UTL502	TML9052	UTO516	TM6516	UTO1502	TM9502
GPD401	CZ8401	UTL503	TML9053	UTO517	TM6517	UTO1522	TM9522
GPD402	CZ8402	UTO101	TM7101	UTO518	TM6518	UTO1524	TM9524
GPD403	CZ8403	UTO102	TM7102	UTO519	TM6519	UTO2012	TM9712
GPD404	CZ8404	UTO103	TM7103	UTO520	TM6520	UTO2013	TM9713
GPD405	CZ8405	UTO104	TM7104	UTO521	TM6521	UTO2022	TM9322
GPD461	CZ8461	UTO111	TM7111	UTO523	TM6523	UTO2023	TM9323
GPD462	CZ8462	UTO210	TM7210	UTO524	TM6524	UTO2024	TM9324
GPD463	CZ8463	UTO211	TM7211	UTO526	TM6526	UTO2025	TM9725
GPD464	CZ8464	UTO221	TM7221	UTO533	TM6533	UTO2027	TM9327
GPM1052	CZ8052	UTO222	TM7222	UTO543	TM6543	UTO2052	TM9352
PPD2001	LNJ9901	UTO250	TM7250	UTO544	TM6544	UTO2055	TM9355
PPD6002	PLJ9962	UTO416	TM6416	UTO545	TM6545	UTO2302	TM9302
PPL504	ENL9654	UTO421	TM6421	UTO546	TM6546	UTO2321	TM6321
UDL502	TDL9552	UTO440	TM6440	UTO547	TM6547	UTO311	TM6570
UTC5-115	BX2530-4	UTO441	TM6441	UTO549	TM6549		
UTC5-123	BX1556-4	UTO442	TM6442	UTO552	TM6152		
UTC5-133	BX1557-4	UTO443	TM6443	UTO554	TM6654		
UTC5-135	BX2529-4	UTO444	TM6444	UTO561	TM6561		
UTC5-142	BX2532-4	UTO501	TM6601	UTO1001	TM9101		
UTC5-150	BX2532-4	UTO502	TM6605	UTO1002	TM9102		
UTC5-152	BX1560-4	UTO503	TM6603	UTO1005	TM9105		

## M/A-Com (Phoenix Microwave) Cross Reference List

M/A-Com	API Technologies	M/A-Com	API Technologies	M/A-Com	API Technologies	M/A-Com	API Technologies
PA002	TM7302	PA350	TM4350	PA820	TM7282	PA964	TM4164
PA005	TM6505	PA360	TM9136	PA860	TM7286	PA965	TM6147
PA10	TM5110	PA370	TM9137	PA861	TM9313	PA966	TM7966
PA010	TM6511	PA380	TM9180	PA870	TM6587	PA967	TM4767
PA015	TM9717	PA381	TM9381	PA871	TM6487	PA968	TM4768
PA030	TM6530	PA390	TM9139	PA890	TM4190	PA969	TR4769
PA050	TM6550	PA510	TM5107	PA891L	TR6689	PA970	TM4770
PA055	TM7055	PA530	TM6143	PA899	TM6599	PA971	TM4771
PA056	TM7056	PA540	TM6554	PA902	TM6509	PA972	TM4172
PA100	TM9716	PA550	TM6555	PA903	TM5103	PA973	TM4773
PA110	TM9110	PA560	TM6556	PA905	TM5101	PA973A	TM4773A
PA112	TM9311	PA570	TM5126	PA906	TM4106	PA974	TR4174
PA120	TM9112	PA580	TM7580	PA907	TM9707	PA975	TM5102
PA150	TM9102	PA590	TM6559	PA908	TM6508	PA976	TM4176
PA162	TM9316	PA591	TM6659	PA909	TM4709	PA977	TM4977
PA170	TM9117	PA630	TM9163	PA910	TM5119	PA978	TM9366
PA177	TR4777	PA640	TM9164	PA912	TM4112	PA979	TM4179
PA179	TR4779	PA650	TM9165	PA914	TM6547	PA984	TR4784
PA180	TM9118	PA660	TM4760	PA915	TM6522	PA985	TM4185
PA181	TM9318	PA661	TM6261	PA916	TM9706	PA987	TM4187
PA190	TM9790	PA663	TM9306	PA918	TM7918	PA988	TM4188
PA191	TM9191	PA670	TM9167	PA919	TM7919	PA989	TR9189
PA195	TR4795	PA671	TM6667	PA920	TM6519	PA990	TM4990
PA196	TR4796	PA702	TM6670	PA923	TM6345	PA992	TR4792
PA197	TR4797	PA703	TM7370	PA924	TM4124	PA1005	TM9705
PA198	TR4798	PA710	TM7271	PA925	TM4125	PA1007	TM4707
PA211	TM9181	PA720	TM6572	PA926	TM5124	PA1017	TR4717
PA219	TM6719	PA740	TM6521	PA928	TM9528	PA1028	TR6128
PA239	TR4739	PA741	TM7274	PA929	TM9729	PA1038	TM4138
PA240	TM9124	PA750	TM6575	PA943	TM6524	PA1046	TM7102
PA250	TM9502	PA752	TM7275	PA946	TM9170	PA1056	TR4756
PA251	TM4151	PA753	TM6675	PA952	TM6752	PA1059MI	TM7186
PA260	TM9126	PA760	TM6576	PA953	TR4753	PA1060	TR4760
PA270	TM9127	PA770	TM6577	PA955	TR9155	PA1082	TM4782
PA278	TR4778	PA771	TM6571	PA957	TM4157	PLA070	TML9002
PA280	TM9128	PA778	TM6178	PA958	TR4758	PLA101	TML4001
PA290	TM9329	PA700	TM7200	PA959	TR4759	PPA557	PN6198
PA291	TM9391	PA701	TM7270	PA960	TM9166		
PA330	TM9330	PA780	TM7278	PA961	TR4761		
PA340	TM9134	PA790	TM7279	PA963	TM4163		

## M/A-Com (Anzac) Cross Reference List

M/A-Com (Anzac)	API	M/A-Com (Anzac)	API	M/A-Com (Anzac)	API	M/A-Com (Anzac)	API
AMC103	TM6103	AM143	TM6143	AM157	TM6157	AMC123	BX6131
AM112	TM6112	AM145	TM6145	AM162	TM6162	AMC183	TM6183
AM117	TM6117	AM146	FP6146	AM171	TM6171	AM184	TM6184
AM119	TM6119	AM147	TM6147	AM176	TM6176	AT101	FPG9101
AM124	TM6124	AM149	TM6149	AM181	TM6181		
AM131	TM6131	AM153	TM6153	AM191	TM6191		
AM134	FP6134	AM155	TM6155	AM210	TM6210		

## RFMD (Vari-L) VCO Cross Reference List

RFMD (Vari-L)	API	RFMD (Vari-L)	API	RFMD (Vari-L)	API	RFMD (Vari-L)	API
VCO102	TOM9300	VCO106	TOM9309	VCO114	TOM9114	VCO118	TOM9306
VCO104	TOM9303	VCO111	TOM9111	VCO116	TOM9304		
VCO105	TOM9305	VCO113	TOM9301	VCO117	TOM9307		

## Motorola Cross Reference List

Motorola	API	Motorola	API	Motorola	API	Motorola	API
MWA110	CZ8110	MWA210	CZ8210	MWA310	CZ8310	CA2810	QBH-2810
MWA120	CZ8120	MWA220	CZ8220	MWA320	CZ8320	CA2818	QBH-2818
MWA130	CZ8130	MWA230	CZ8230	MWA330	CZ8330	CA2832	QBH-2832-04

## M/A-Com (Anzac) Switch Cross Reference List

M/A-Com	API	M/A-Com	API	M/A-Com	API	M/A-Com	API
SW203	TWK2203	SW214	TWP2214	SW231	TWP2231	SW248	TWP2248
SW204	TWP2204	SW215	TWD2215	SW233	TWP2233	SW254	TWD2254
SW206	TWD2206	SW216	TWD2216	SW234	TWP2234	SW261	TWP2261
SW209	TWP2209	SW219	TWP2219	SW238	TWP2238	SW262	TWP2262
SW213	TWK2213	SW224	TWK2224	SW241	TWD2241	SW264	TWP2264

## M/A-Com (Watkins Johnson) Cross Reference List

M/A-Com (Watkins-Johnson)	API	M/A-Com (Watkins-Johnson)	API	M/A-Com (Watkins-Johnson)	API	M/A-Com (Watkins-Johnson)	API
A-1	TM6501	A-32-1	TM9732	A-67-1	TM6667	A-86	TM7286
A-3	TM6503	A-33	TM9133	A-70	TM7170	A-87	TM6587
A-5	TM6505	A-34	TM9134	A-70-1	TM7270	A-87-1	TM6487
A-5-5	TM6605	A-35	TM9135	A-70-3	TM7370	A-88	TM6588
A-7	TM6607	A-36	TM9136	A-71	TM7271	AL-7	TL9012
A-9	TM6609	A-36-1	TM9336	A-70-2	TM6670	A-87-2	TM7287
A-11	TM9111	A-36-2	TM9236	A-72	TM6572	G-1	TG9001
A-11-2	TM9311	A-37	TM9137	A-73	TM6573	G-2	TG9022
A-12	TM9112	A-38	TM9138	A-74	TM6574	G-30	TG9030
A-13	TM9113	A-39	TM9139	A-74-1	TM7274	L-1	TL9010
A-16-2	TM9316	A-45	TM9745	A-74-2	TM6674	L-2	TL9011
A-17	TM9117	A45-1	TM9541	A-75	TM6575	LA-7	TML9002
A-18	TM9118	A-54	TM6554	A-75-2	TM7275	LA-17	TML9017
A-18-1	TM9318	A-55	TM6555	A-75-3	TM6675	LA-88	TML9088
A-19	TM9119	A-56	TM6556	A-76	TM6576	LG-1	TML9003
A-19-1	TM9319	A-57	TM6557	A-77	TM6577	LG-30	TML9009
A-23	TM9123	A-58	TM6558	A-77-1	TM6677	RA-89-1	TR6689
A-24	TM9124	A-59	TM6559	A-78	TM7278	PA-3	TM6203
A-25	TM9125	A-59-1	TM6659	A-79	TM7279	PA-12	TM6212
A-25-1	TM9325	A-63	TM9163	A-81	TM7281	PA-15	TM9723
A-26	TM9126	A-63-1	TM9363	A-81-1	TM7381	PA-37	TR9737
A-27	TM9127	A-64	TM9164	A-81-2	TM6581	PA-38	TM6238
A-28	TM9128	A-65	TM9165	A-81-3	TM6681	PA-48	TM9248
A-28-2	TM9328	A-66	TM9166	A-82	TM7282	RA-36	TR9536
A-29	TM9129	A-66-1	TM9366	A-82-1	TM7382	RA-66	TR9666
A-29-1	TM9329	A-66-3	TM9566	A-83	TM6583	RA-69	TR9169
A-31-1	TM9331	A-67	TM9167	A-83-1	TM6683	RA-76	TR6676
A-32	TM9132					RA-89	TR6589

## M/A-Com (Anzac) Cross Reference List

M/A-Com (Anzac)	API	M/A-Com (Anzac)	API	M/A-Com (Anzac)	API	M/A-Com (Anzac)	API
AMC103	TM6103	AM143	TM6143	AM157	TM6157	AMC123	BX6131
AM112	TM6112	AM145	TM6145	AM162	TM6162	AMC183	TM6183
AM117	TM6117	AM146	FP6146	AM171	TM6171	AM184	TM6184
AM119	TM6119	AM147	TM6147	AM176	TM6176	AT101	FPG9101
AM124	TM6124	AM149	TM6149	AM181	TM6181	AMC103	TM6103
AM131	TM6131	AM153	TM6153	AM191	TM6191		
AM134	FP6134	AM155	TM6155	AM210	TM6210		

## M/A-Com (Watkins Johnson) Mixers Cross Reference List

M/A-Com (Watkins-Johnson)	API	M/A-Com (Watkins-Johnson)	API	M/A-Com (Watkins-Johnson)	API
M2G	MW73T	M79	MW94MN	MZ7410	MW94ML-4
M2GC	MW73TC	M79C	MW94CN	MZ7410C	MW94PL-4
M4A	MW57H	M79H	MW98MN	MZ7420	MW98ML
SM4A	MW57SM	M79HC	MW98CN	MZ7420C	MW98PL
M4B	MW57H-1	M80	MW93MG-30	MZ8810	MW94MN-2
M4G	MW73H	M80C	MW93PG-30	MZ8810C	MW94PN-2
SM4G	MW73SM	M80L	MW90MG-30	MZ8813	MM96MN-2
M8H-3	MW63TL-10	M80LC	MW90PG-30	MZ8813C	MW96PN-2
M8HC-3	MW63CL-10	MY82	MW96ML-1	MZ9310	MM94MG-3
M8H-7	MW43TG-10	MY82C	MW96PL-1	MZ9310C	MM94PG-3
M8HC-7	MW43CG-10	M83	MW96ML-1	MZ9313	MW96MG-4
M9H	MW57T	M83C	MW96PL-1	MZ9313C	MW96PG-4
M9HC	MW57TC	MY83H	MW98ML-1		
M62	MW44MG-10	MY83HC	MW98PL-1		
M62C	MW44CG-10	MY84	MW64MG-10		
M63	MW44EG-10	MY84C	MW64PG-10		
M63C	MW44CG-11	M85C	MW93CG-21		
MY63	MW44MG-11	MY85	MW93MG-21		
MY63C	MW44PG-10	MY85C	MW93PG-21		
M63H	MW48EG-10	M87C	MW96CG-3		
M63HC	MW48CG-10	MY87	MW96MG-3		
MY63H	MW48MG-10	MY87C	MW96PG-3		
MY63HC	MW48PG-10	M88C	MW96CN-1		
M67	MW94ML	MY88	MW96MN-1		
M67C	MW94CL	MY88C	MW96PN-1		
M74	MW94ML-2	M88HC	MW98CL-15		
M74C	MW94CL-2	MY88H	MW98ML-15		
M76	MW64ML-10	MY88HC	MW98PL-15		
M76C	MW64PL-10	M89C	MW94CN-1		
MY76	MW64ML-10	MY89	MW94MN-1		
MY76C	MW64PL-10	MY89C	MW94PN-1		
M76H	MW68ML-10	M93C	MW94CL-1		
M76HC	MW68CL-10	MY93	MW94ML-1		
MY76H	MW68ML-10	MY93C	MW94PL-1		
MY76HC	MW68PL-10	MZ6310	MW64MG-11		
M77	MW94ML-3	MZ6310C	MW64PG-11		
M77C	MW94CL-3	MZ7407	MW93ML		
MY77	MW94ML-3	MZ7407C	MW93PL		
MY77C	MW94PL-3				