

**CATV Distribution Hybrid Amplifiers**

All Motorola Hybrids are manufactured using fourth generation technology which has set new standards for CATV system performance and reliability. These hybrids have been optimized to provide premium performance in all CATV systems up to 77 channels. The package for these modules is Case 714-02 unless otherwise noted.

**Hybrids up to 40 channels and 330 MHz**

Device	Hybrid Gain (Nominal) dB	Channel Loading Capacity	Maximum Distortion Specifications						Noise Figure @ 330 MHz dB	
			Output Level dBmV	2nd Order Test Note 1 dB	Composite Triple Beat dB		Cross Modulation dB		Max	Typ
					35 CH	40 CH	35 CH	40 CH		
MHW1121	12	40	+50	-68	-51	-49*	-51	-50*	7.0	6.0
MHW1122	12	40	+50	-70	-56	-54*	-51	-50*	8.0	6.5
MHW3171	17	40	+50	-68	-56	-54	-55	-54	6.0	5.5
MHW3172	17	40	+50	-70	-59	-57	-58	-57	7.0	6.0
MHW3181	18	40	+50	-68	-54	-52	-55	-54	6.0	5.2
MHW3182	18	40	+50	-68	-57	-55	-58	-57	7.0	6.0
MHW3222	22	40	+50	-65	-57	-55	-55	-54	6.5	5.0
MHW3342	34	40	+50	-68	-57	-55	-57	-55	5.5	4.5

**Hybrids up to 60 channels and 450 MHz**

Device	Hybrid Gain (Nominal) dB	Channel Loading Capacity	Maximum Distortion Specifications						Noise Figure @ 450 MHz dB	
			Output Level dBmV	2nd Order Test Note 2 dB	Composite Triple Beat dB		Cross Modulation dB		Max	Typ
					53 CH	60 CH	53 CH	60 CH		
MHW5122	12	60	+46	-70	-61	-58	-62	-61	9.0	8.0
MHW5141A	14	60	+46	-72	-61	-58	-61	-59	7.0	—
MHW5142	14	60	+46	-70	-62	-59	-62	-61	8.0	7.0
MHW5142A	14	60	+46	-74	-63	-61	-63	-62	8.0	—
MHW5171	17	60	+46	-70	-58	-55	-58	-57	6.5	5.5
MHW5171A	17	60	+46	-72	-61	-58	-60	-59	6.5	—
MHW5172	17	60	+46	-70	-61	-58	-61	-60	7.0	6.0
MHW5172A	17	60	+46	-74	-63	-61	-63	-62	7.0	—
MHW5181	18	60	+46	-72	-58	-55	-59	-58	6.5	5.5
MHW5181A	18	60	+46	-72	-61	-58	-59	-58	6.0	—
MHW5182	18	60	+46	-72	-62	-59	-62	-61	7.0	6.0
MHW5182A	18	60	+46	-74	-63	-61	-62	-61	7.0	—
MHW5222	22	60	+46	-68	-57	-54*	-54	-54*	7.0	6.0
MHW5222A	22	60	+46	-72	-62	-60	-60	-59	6.5	—
MHW5272A	27	60	+46	-72	-62	-59	-61	-60	6.5	—
MHW5342	34	60	+46	-70	-61	-58	-62	-59	6.0	5.0
MHW5342A	34	60	+46	-72	-62	-59	-60	-59	6.0	—
MHW5382	38	60	+46	-68	-60	-57	-60	-58	6.0	5.0
MHW5382A	38	60	+46	-70	-61	-58	-59	-58	6.0	—

NOTES: 1. Channels (2 and 13) @ R  
2. Channels (2 and M13) @ M22

\*Typ