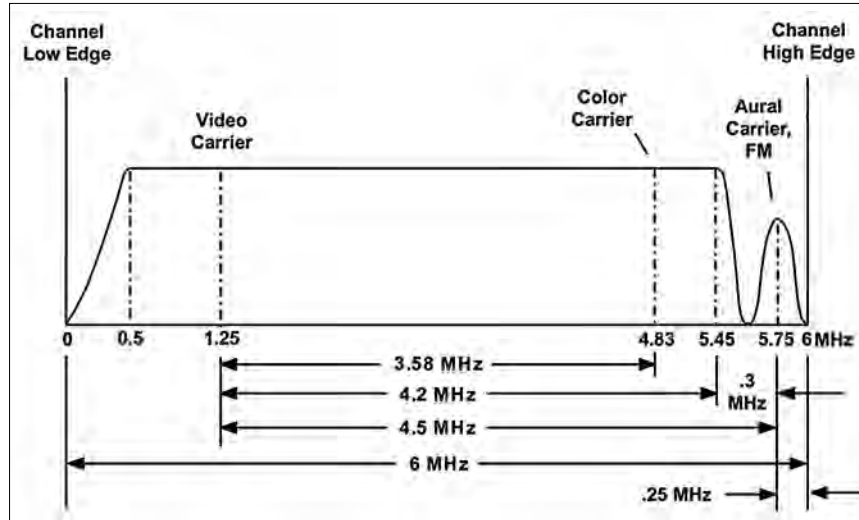




## NTSC Frequency Chart (Continued)

Band	Channel		Bandwidth MHz	Frequency Range MHz	Carrier Frequencies (MHz)	
	CATV	TV			Visual	Aural
UHF Off Air (Cont.)	-	76	6	842 - 848	843.2500	847.7500
	-	77	6	848 - 854	849.2500	853.7500
	-	78	6	854 - 860	855.2500	859.7500
	-	79	6	860 - 866	861.2500	865.7500
	-	80	6	866 - 872	867.2500	871.7500
	-	81	6	872 - 878	873.2500	877.7500
	-	82	6	878 - 884	879.2500	883.7500
	-	83	6	884 - 890	885.2500	889.7500



## Cable Attenuation Chart

Frequency MHz	Channel #	Drop Cable Types			Hardline Types
		RG59	RG6	RG11	.500
5	<T-7	0.77	0.57	0.36	0.16
40	T-12	1.6	1.28	0.81	0.47
55	2	1.88	1.50	0.95	0.55
211	13	3.59	2.87	1.81	1.08
300	CATV 36	4.27	3.43	2.17	1.31
400	CATV 54	4.88	4.00	2.53	1.53
500	CATV 69	5.50	4.51	2.85	1.73
550	CATV 78	5.90	4.76	3.01	1.82
600	CATV 86	6.18	4.98	3.16	1.91
750	CATV 116	6.96	5.62	3.58	2.16
870	CATV 136	7.54	6.09	3.90	2.35
950	SAT IF LOW	7.90	6.39	4.10	2.49
1000	CATV 158	8.09	6.54	4.23	2.53
1450	SAT IF HIGH	9.82	7.89	5.29	3.12
2150	SAT IF STACKED	12.10	9.69	6.60	3.92
Loop Resistance Ohms/100 Ft.		5.99	3.96	1.95	3.92

Typical Cable Attenuation Chart in dB/100-ft @ 68°F

mV	dBmV	dB $\mu$ V	dBm
0.0010	-60	0	-108.75
0.0011	-59	1	-107.75
0.0013	-58	2	-106.75
0.0014	-57	3	-105.75
0.0016	-56	4	-104.75
0.0018	-55	5	-103.75
0.0020	-54	6	-102.75
0.0022	-53	7	-101.75
0.0025	-52	8	-100.75
0.0028	-51	9	-99.75
0.0032	-50	10	-98.75
0.0035	-49	11	-97.75
0.0040	-48	12	-96.75
0.0045	-47	13	-95.75
0.0050	-46	14	-94.75
0.0056	-45	15	-93.75
0.0063	-44	16	-92.75
0.0071	-43	17	-91.75
0.0079	-42	18	-90.75
0.0089	-41	19	-89.75
0.0100	-40	20	-88.75
0.0112	-39	21	-87.75
0.0126	-38	22	-86.75
0.0141	-37	23	-85.75
0.0158	-36	24	-84.75
0.0178	-35	25	-83.75
0.0200	-34	26	-82.75
0.2240	-33	27	-81.75
0.0251	-32	28	-80.75
0.0282	-31	29	-79.75
0.0316	-30	30	-78.75
0.0355	-29	31	-77.75
0.0398	-28	32	-76.75
0.0447	-27	33	-75.75
0.0501	-26	34	-74.75
0.0562	-25	35	-73.75
0.0631	-24	36	-72.75
0.0708	-23	37	-71.75
0.0794	-22	38	-70.75
0.0891	-21	39	-69.75
0.1000	-20	40	-68.75
0.1120	-19	41	-67.75
0.1259	-18	42	-66.75
0.1413	-17	43	-65.75
0.1586	-16	44	-64.75
0.1778	-15	45	-63.75
0.1995	-14	46	-62.75
0.2239	-13	47	-61.75

mV	dBmV	dB $\mu$ V	dBm
0.2512	-12	48	-60.75
0.2818	-11	49	-59.75
0.3162	-10	50	-58.75
0.3548	-9	51	-57.75
0.3981	-8	52	-56.75
0.4467	-7	53	-55.75
0.5012	-6	54	-54.75
0.5623	-5	55	-53.75
0.6310	-4	56	-52.75
0.7079	-3	57	-51.75
0.7943	-2	58	-50.75
0.8913	-1	59	-49.75
1.0000	0	60	-48.75
1.1220	-1	61	-47.75
1.2589	-2	62	-46.75
1.4125	-3	62	-45.75
1.5849	-4	64	-44.75
1.7783	-5	65	-43.75
1.9953	6	66	-42.75
2.2387	7	66	-41.75
2.5119	8	67	-40.75
2.8184	9	68	-39.75
3.1623	10	69	-38.75
3.5481	11	70	-37.75
3.9811	12	71	-36.75
4.4668	13	72	-35.75
5.0119	14	73	-34.75
5.6234	15	74	-33.75
6.3096	16	75	-32.75
7.0795	17	76	-31.75
7.9433	18	77	-30.75
8.9125	19	78	-29.75
10.0000	20	79	-28.75
11.2202	21	80	-27.75
12.5893	22	81	-26.75
14.1254	23	82	-25.75
15.8489	24	83	-24.75
17.7828	25	84	-23.75
19.9526	26	85	-22.75
22.3872	27	86	-21.75
25.1189	28	87	-20.75
28.1838	29	88	-19.75
31.6228	30	89	-18.75
35.4813	31	90	-17.75
39.8107	32	91	-16.75
44.6684	33	93	-15.75
50.1187	34	94	-14.75
56.2341	35	95	-13.75

mV	dBmV	dB $\mu$ V	dBm
63.0957	36	96	-12.75
70.7946	37	97	-11.75
79.4328	38	98	-10.75
89.1251	39	99	-9.75
100.0000	40	100	-8.75
112.2018	41	101	-7.75
125.8925	42	102	-6.75
141.2538	43	103	-5.75
158.4893	44	104	-4.75
177.8279	45	105	-3.75
199.5262	46	106	-2.75
223.8721	47	107	-1.75
251.1886	48	108	-0.75
273.8420	48.75	108.75	0.00
281.8383	49	109	0.25
316.2278	50	110	1.25
354.8134	51	111	2.25
398.1072	52	112	3.25
446.6836	53	113	4.25
501.1872	54	114	5.25
562.3413	55	115	6.25
630.9573	56	116	7.25
707.9458	57	117	8.25
794.3282	58	118	9.25
891.2509	59	119	10.25
1000.0000	60	120	11.25
1122.0185	61	121	12.25
1258.9254	62	122	13.25
1412.5375	63	123	14.25
1584.8932	64	124	15.25
1778.2794	65	125	16.25
1995.2623	66	126	17.25
2238.7211	67	127	18.25
2511.8864	68	128	19.25
2818.3829	69	129	20.25
3162.2777	70	130	21.25
3548.1339	71	131	22.25
3981.0717	72	132	23.25
4466.8359	73	133	24.25
5011.8723	74	134	25.25
5623.4133	75	135	26.25
6309.5734	76	136	27.25
7079.4578	77	137	28.25
7943.2823	78	138	29.25
8912.5094	79	139	30.25
10000.0000	80	140	31.25

## Limited Warranty

Pico Macom warrants to the original purchaser that all of its new products are of sound design, quality materials and workmanship at the time of manufacture and will be free from related defects for one year from the original purchase date. Pico Macom will repair or, at its discretion, replace without cost to the original purchaser, the product which, upon inspection by Pico Macom, appears to be defective or not conforming to factory specifications. Pico Macom will cover the cost of parts, labor, and return freight from factory.

## Five-Year Limited Warranty



Most products designated as "Headend Electronics" are further covered by an extended 4-year period beyond the expiration of the original 1-year warranty, for a full 5-year period. Qualified equipment requiring factory repair during the extended 4-year period is covered under our re-certification program. Re-certification fees under this program shall not to exceed 20% of the product's List Price and whenever possible, Pico Macom will attempt to upgrade performance to the latest improved specification.

## Warranty Limitations

This warranty excludes coverage of damage or inoperability resulting from (1) use or installation other than in strict accordance with Pico Macom's written instructions, (2) disassembly or repair by someone other than Pico Macom or a Pico Macom authorized repair center, (3) misuse, misapplication or abuse, (4) alteration, (5) lack of reasonable care or (6) wind, ice, snow, rain, lightning, power surges, or any other weather conditions or acts of God. Pico Macom's warranty with respect to third-party proprietary sub-assembly modules and/or private-label products are limited to the duration and terms of third-party vendors' warranty. Pico Macom shall in no event and under no circumstances be liable or responsible for any consequential, indirect, incidental, punitive, direct or special damages based upon breach of warranty, breach of contract, negligence, strict tort liability or otherwise or any other legal theory, arising directly or indirectly from the sale, use, installation or failure of any product acquired by buyer from Pico Macom. This limited warranty extends to the original purchaser. Pico Macom reserves the right to modify or discontinue this warranty at Pico Macom's sole discretion without notification. No other warranties are expressed or implied.

## Uptime Loaner Program

Our Uptime loaner program is designed to provide domestic users of our headend products and commercial systems the best possible support and service. This program is established to minimize downtime resulting from equipment failure in critical service situations. We offer this program free-of-charge (excluding freight) to qualified purchasers within the warranty period. The program provides a free equipment loan of like qualified equipment enabling seamless operation for the time required to repair and return the unit.

The process is simple. Call our Customer Service desk requesting a return-merchandise-authorization (RMA) number for the failed equipment and ask for a loaner unit. We will issue an invoice for the List Price of the loaner unit plus shipping costs. When you receive the loaner unit, pack the failed unit in the loaner unit's box and ship it freight prepaid to Pico Macom for repair. When you receive the repaired unit, a new RMA number will be provided in the box. Carefully pack the loaner unit and affix the new RMA number on the box and ship it back to us for full credit excluding shipping costs.

To qualify for the program, you must have current open-terms with us and in good standing. We must receive your failed unit within one week after the loaner unit is shipped to you, and must likewise receive the loaner unit within one week after the repaired unit is shipped back to you. Daily rental fees not to exceed 10% of the equipment's List Price will apply beyond one week after the loaner or repaired unit are shipped to you. Other limitations may apply,

so please call us for additional information on qualifying equipment and procedures. Pico Macom reserves the right to modify or discontinue the Uptime Loaner Program at any time, and at its sole discretion.

## Damage or Shortage Claims

Our shipping staff carefully packs and ships your orders in compliance with common carriers' requirements. Please make note of any obvious damage or shortage on the freight bill or carrier's receipt next to your signature. The carrier's agent must too sign acknowledging the loss. Failure to do so may result in the carrier's refusal to honor the claim. Please open your order immediately upon receipt to check for concealed damage and compare the packing list to the items shipped. If damaged, keep the original shipping cartons for possible inspection by the carrier. You must report claims for loss or damage within 3 days of delivery, while claims for erroneous charges or price corrections must be presented within 30 days of invoice date.

## Returning Shipped Items

To return any shipped items, including those shipped for warranty repairs or credit, call our Customer Service desk to request a Return Merchandise Authorization (RMA) number. Please reference the original invoice number and purchase date, and product serial number (if any). Be certain to mark the RMA number on the package boldly and legibly. Unless we specify a different carrier, please ship your returned items to us via UPS freight prepaid and fully insured. If returned for credit, we will promptly process your request upon receipt of your return order.

## Our Return Policy: Your Satisfaction Guaranteed

Our goal is your complete satisfaction. If for any reason, our products were not quite what you anticipated, simply call your customer service rep and we will be happy to assist you in replacing or returning the order. You may return current, non-discontinued items for full credit for up to 30 days from invoice date. Our requirements are simple: Excepting defective items, the products must be returned in their original packaging and in re-salable condition. Restocking fees may otherwise apply beyond this period or if products are not returned in their original condition. Please contact your customer service rep for more information.