AFM-xxA/N

- **Complete range of precision attenuators**
- **EN Class A compliant screening effectiveness**
- **Wide frequency range from 5 - 3000 MHz**
- **High return loss specification**
- **Tubular brass housing with NiSn plating**
- **F-male pin and F-female tulip spring are NiSn plated**
- **F-female tulip spring accepts 0.56 - 1.15 mm test gauges**

Overview

The AFM-xxA/N series is a complete range of precision attenuators providing attenuation from 0 dB up to 20 dB, depending on the model. These attenuators have a very wide frequency range running from 5 MHz to 3 GHz, while flatness and return loss performance remain excellent.

The high frequency shielding exceeds Class A requirements (EN 50083-2 2006) over the entire frequency range.

The small tubular housing and its connectors are made of brass and have a NiSn-plating, as do the F-male inner pin and tulip F-female contact.

Extensive research in a number of labs worldwide has shown that NiSn plating is the best plating material for products used in CATV networks. The most important feature is the protection against Common Path Distortion (CPD).

The tulip female contact is made of beryllium copper, which provides excellent resilience/contact pressure over a wide range of conductor diameters. The tulip contact has been designed specially for connecting coax cables with an inner core diameter of between 0.56 and 1.15 mm. It retains this elasticity and provides effective clamping force even when varying thicknesses of inner conductor are connected in succession.

CPD Safe

CPD (Common Path Distortion) is well known for producing signal interference on networks. It is caused by electrolytic corrosion or the oxidisation of dissimilar metals when in close contact. The AFM-xxA/N series protects against CPD with its NiSn plating.

- Removes a primary cause of CPD
- Reduces signal interference on the network
- Drives fewer reported faults
- Reduces truck rolls
- Improves customer service

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Specifications

		MHz	0dB		1dB		2dB		3dB		4dB		5dB		6dB	
Frequency range		5 - 3000	**Typ**	**Max**	**Typ**	**Max**	**Typ**	**Max**	**Typ**	**Max**	**Typ**	**Max**	**Typ**	**Max**	**Typ**	**Max**
Insertion loss (dB)	In to Out 1	5 - 1000	0.0	0.3	1.0	1.3	2.0	2.3	3.0	3.3	4.0	4.3	5.0	5.2	6.0	6.3
		1000 - 2000	0.0	0.5	1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.5	5.0	5.5	6.0	6.5
		2000 - 3000	0.0	1.0	1.0	2.0	2.0	3.0	3.0	4.0	4.0	5.0	5.0	6.0	6.0	7.0
Return loss (dB. min)	In to Out 2	5 - 1000	25.0		25.0		25.0		25.0		25.0		25.0		25.0	
		1000 - 2000	20.0		20.0		20.0		20.0		20.0		20.0		20.0	
		2000 - 3000	15.0		15.0		15.0		15.0		15.0		15.0		15.0	
Screening efficiency (dB. typ). Minimum exceeds Class A.[1]		5 - 300	95.0		95.0		95.0		95.0		95.0		95.0		95.0	
		300 - 470	90.0		90.0		90.0		90.0		90.0		90.0		90.0	
		470 - 950	85.0		85.0		85.0		85.0		85.0		85.0		85.0	
		950 - 3000	65.0		65.0		65.0		65.0		65.0		65.0		65.0	
		MHz	**7dB**		**8dB**		**9dB**		**10dB**		**11dB**		**12dB**		**13dB**	
Frequency range		5 - 3000	**Typ**	**Max**	**Typ**	**Max**	**Typ**	**Max**	**Typ**	**Max**	**Typ**	**Max**	**Typ**	**Max**	**Typ**	**Max**
Insertion loss (dB)	In to Out 1	5 - 1000	7.0	7.2	8.0	8.3	9.0	9.2	10.0	10.3	11.0	11.3	12.0	12.3	13.0	13.5
		1000 - 2000	7.0	7.5	8.0	8.5	9.0	9.5	10.0	10.5	11.0	11.5	12.0	12.5	13.0	14.0
		2000 - 3000	7.0	8.0	8.0	9.0	9.0	10.0	10.0	11.0	11.0	12.0	12.0	13.0	13.0	14.5
Return loss (dB. min)	In to Out 2	5 - 1000	25.0		25.0		25.0		25.0		25.0		25.0		25.0	
		1000 - 2000	20.0		20.0		20.0		20.0		20.0		20.0		20.0	
		2000 - 3000	15.0		15.0		15.0		15.0		15.0		15.0		15.0	
Screening efficiency (dB. typ). Minimum exceeds Class A.[1]		5 - 300	95.0		95.0		95.0		95.0		95.0		95.0		95.0	
		300 - 470	90.0		90.0		90.0		90.0		90.0		90.0		90.0	
		470 - 950	85.0		85.0		85.0		85.0		85.0		85.0		85.0	
		950 - 3000	65.0		65.0		65.0		65.0		65.0		65.0		65.0	
		MHz	**14dB**		**15dB**		**16dB**		**17dB**		**18dB**		**19dB**		**20dB**	
Frequency range		5 - 3000	**Typ**	**Max**	**Typ**	**Max**	**Typ**	**Max**	**Typ**	**Max**	**Typ**	**Max**	**Typ**	**Max**	**Typ**	**Max**
Insertion loss (dB)	In to Out 1	5 - 1000	14.0	14.5	15.0	15.5	16.0	16.5	17.0	17.5	18.0	19.0	19.0	20.0	20.0	21.0
		1000 - 2000	14.0	15.0	15.0	16.0	16.0	17.0	17.0	18.0	18.0	20.0	19.0	21.0	20.0	22.0
		2000 - 3000	14.0	15.5	15.0	16.5	16.0	17.5	17.0	19.0	18.0	21.0	19.0	23.0	20.0	25.0
Return loss (dB. min)	In to Out 2	v	25.0		25.0		25.0		25.0		25.0		25.0		25.0	
		1000 - 2000	20.0		20.0		20.0		20.0		20.0		20.0		20.0	
		2000 - 3000	15.0		15.0		15.0		15.0		15.0		15.0		15.0	
Screening efficiency (dB. typ). Minimum exceeds Class A.[1]		5 - 300	95.0		95.0		95.0		95.0		95.0		95.0		95.0	
		300 - 470	90.0		90.0		90.0		90.0		90.0		90.0		90.0	
		470 - 950	85.0		85.0		85.0		85.0		85.0		85.0		85.0	
		950 - 3000	65.0		65.0		65.0		65.0		65.0		65.0		65.0	
Impedance (Ohm, typ)			75													
Connectors	In/Out		F-female													
	Out/In		F-male													
Material	Housing		Brass with NiSn plating													
	F-tulip spring		Beryllium Copper with NiSn plating													
Temperature range (ºC)			-20 - 55													
Dimensions (mm)	L x H x D		29.7 x 11 x 11													
	Male connector	Diameter	0.7													
Equipment Approval	CE															

Remarks

1 | Tested according to EN 50083-2 2006

Ordering information

Item Name	Article number	Item Name	Article number	Item Name	Article number	Item Name	Article number
AFM-0A/N	19001742	AFM-6A/N	19001747	AFM-12A/N	19001750	AFM-18A/N	19002698
AFM-1A/N	19001743	AFM-7A/N	19002691	AFM-13A/N	19002694	AFM-19A/N	19002699
AFM-2A/N	19001744	AFM-8A/N	19001748	AFM-14A/N	19002695	AFM-20A/N	19001752
AFM-3A/N	19001745	AFM-9A/N	19002692	AFM-15A/N	19002696		
AFM-4A/N	19001746	AFM-10A/N	19001749	AFM-16A/N	19001751		
AFM-5A/N	19002690	AFM-11A/N	19002693	AFM-17A/N	19002697		