



## Lightning Surge Arrestors



### Ordering Information

Interface Type	Type Number
<b>For LDF5-50A, 7/8" Foam-Dielectric Cable</b>	
Bulkhead N Female	APTL5-BNF-(*)
Bulkhead 7-16 DIN Female	APTL5-BDF-(*)
<b>For LDF6-50, 7/8" Foam-Dielectric Cable</b>	
Bulkhead N Female	APTL6-BNF-(*)
Bulkhead 7-16 DIN Female	APTL6-BDF-(*)
<b>For LDF7-50A, 7/8" Foam-Dielectric Cable</b>	
Bulkhead N Female	APTL7-BNF-(*)
Bulkhead 7-16 DIN Female	APTL7-BDF-(*)

\* Frequency band. Insert Detail Number from Operating Frequencies table.

**Operating Frequencies** – Contact Andrew for current availability of specific frequency bands.

Frequency Band, MHz	Insertion Loss, dB	Return Loss dB, Typical	Detail Number
800-870	< 0.1	28.0	-6
824-900	< 0.1	28.0	-2
824-960	< 0.1	28.0	-1
870-960	< 0.1	28.0	-3
1700-1900	< 0.1	28.0	-11
1850-1990	< 0.1	28.0	-9

90° Mounting Bracket for APTL Series Arrestor Plus  
 .....Type **244847**

### *Arrestor Plus® Integrated, T-Series Lightning Surge Arrestors*

The Arrestor Plus<sup>†</sup> Integrated, T-Series Lightning Surge Arrestor is a one-piece surge arrestor/HELIAX® connector. It uniquely combines the reliability of quarter-wave shorting stub technology with the proven performance of HELIAX connectors to deliver premium lightning protection in a single component.

The integrated design of the Arrestor Plus reduces the number of components resulting in improved system performance and reduced system cost. Silver plating and high contact pressures throughout maintain low intermodulation levels – a definite plus for today's wireless systems.

Arrestor Plus is available for 1/2", 7/8", 1-1/4", and 1-5/8" LDF cables as specified in the table.

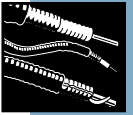
<sup>†</sup> U.S. and international patents pending.

#### Integrated Arrestor/Connector Design

- *Insertion loss less than 0.1 dB*
- *Improved system performance*
- *Reduced component costs*
- *Easy installation*
- *Completely weatherproof*
- *RingFlare™ connector design automatically flares the cable as the connector is tightened.*

#### Quarter-Wave Shorting Stub Technology

- *Provides true "multi-strike" capability. Tests performed by independent laboratories verify that Arrestor Plus withstands in excess of 50 impulse current surges of 50 kA without product degradation.*
- *Reliable equipment protection*
- *Maintenance free*



## Arrestor Plus<sup>®</sup>

### T-Series, Lightning Surge Arrestors

- Compact profile ideal for installation in tight spaces
- Reliable equipment protection
- Excellent microwave performance. Low VSWR, low insertion loss
- Fully weatherproof
- Easy installation
- Available with Type N or DIN interfaces

The new Arrestor Plus T-Series surge arrester provides excellent lightning protection and outstanding RF performance, in a compact design, that is ideal for confined applications, indoors or outdoors.

Using quarter-wave surge protection technology, this T-shaped arrester offers true multistrike protection. For an applied current impulse at 20 kA (8 x 20 waveform), the throughput energy is less than 1 mJ. Silver plated components and high pressure contacts throughout also ensure low levels of intermodulation and excellent VSWR performance. The slim profile easily fits inside equipment enclosures. It is also fully weatherproof and is suitable for a variety of outdoor applications.

The Arrestor Plus T-Series is supplied with a grounding stud which allows direct attachment to a ground lead or bus bar. Mounting flexibility is further enhanced by the variety of through hole configurations provided in the body of the arrester.

The T-Series is complemented with a full line of mounting adapters and accessories.

#### Ordering Information

Interface Type	Type Number
N Male/N Male	APT-NMNM-(*)
N Female/N Female	APT-NFNF-(*)
N Female/N Male, Hex	APT-NFNM-(*)
7-16 DIN Female/7-16 DIN Female	APT-DFDF-(*)
7-16 DIN Female/7-16 DIN Male	APT-DFDM-(*)

\* Frequency band. Insert Detail Number from Operating Frequencies table.

#### Operating Frequencies

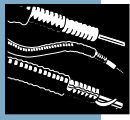
Frequency Band, MHz**	Insertion Loss, dB	VSWR Max.	Detail Number
824-960	< 0.1	1.10	-1
824-900	< 0.1	1.07	-2
870-960	< 0.1	1.07	-3
800-870	< 0.1	1.07	-6
1700-1900	< 0.1	1.07	-11
1850-1990	< 0.1	1.07	-9

\*\* Additional frequencies available. Contact Andrew for availability.

#### APT Mounting Hardware

Type N .....Type 243394  
 DIN.....Type 243396





## Replaceable Gas Tube Surge Arrestors



### *New SureFlex™ Arrestor Plus® Cable Assemblies*

Both the Quarter Wave Shorting Stub (QWS) surge arrestors and broadband replaceable gas tube arrestors are available in combination with the new Sureflex cable assemblies. These cable assemblies include all the benefits of SureFlex plus the protection of an integrated Arrestor Plus surge arrester.

SureFlex cable assemblies' unique connector attachment includes a solder connection to both the inner and the outer conductors. The automated attachment process employs an induction soldering technique that ensures 360 degrees of electrical contact and a reliable weather seal. This process ensures a consistent, robust attachment every time.

The one-piece surge arrester/connector delivers premium lightning protection in a single component that is completely soldered to seal in performance and seal out the elements. SureFlex Arrestor Plus assemblies include bulkhead mounting and will fit into your base station cabinet or in building applications.

Contact Andrew to have an assembly designed for your application.

### *Arrestor Plus® Replaceable Gas Tube Surge Arrestors*

Offering broadband performance from 0-2500 MHz and excellent electrical characteristics, Arrestor Plus Replaceable Gas Tube Surge Arrestors are easy to install and feature a dc pass capability through the center conductor to power tower-top electronics. The unit's removable cap makes periodic maintenance fast and easy.

#### Ordering Information

Interface Type	Gas Tube Static Sparkover Voltage	Type Number
Bulkhead 7-16 DIN Female and 7-16 DIN Female	90	APG-BDFDF-090
	230	APG-BDFDF-230
	350	APG-BDFDF-350
Bulkhead 7-16 DIN Female and 7-16 DIN Male	90	APG-BDFDM-090
	230	APG-BDFDM-230
	350	APG-BDFDM-350
Bulkhead Type N Female and Type N Female	90	APG-BNFNF-090
	230	APG-BNFNF-230
	350	APG-BNFNF-350
Bulkhead Type N Female and Type N Male	90	APG-BNFNM-090
	230	APG-BNFNM-230
	350	APG-BNFNM-350
	1000	APGHP-BNFNM-1000

#### Gas Tube Replacement Kit of 10

Static Sparkover Voltage	Type Number
90	GASTUBE-090
230	GASTUBE-230
350	GASTUBE-350
1000	GASTUBE-1000

#### 90 Degree Mounting/Grounding Bracket

Interface Type	Type Number
Type N	243951
7-16 DIN	243950