Overview of NexTek’s Arrestor Families

- Fixed GDT Device
- Replaceable GDT Device
- Quarter Wavelength Stub Device
- Fast Response/Multistage Device

Product Selection Questions

Chart of all Product Families by Technology

Chart of all Product Families by Frequency (Pass Band)
NexTek designs and manufactures a large family of coaxial surge arrestor designs for a variety of applications.

**Standard Units Available with the following features:**
- RF Pass Bands between DC and 18GHz
- Type N, TNC, SMA, 7/16 DIN, MMCX, BNC, and F Type connectors available
- GDT, Quarter wavelength stub, multi-stage, and bias-tee technology
- Fast Response, Ultra-High Surge Current Ratings
- Protection against Lightning, ESD, EMP, and other Threat Types

**Customized Arrestors** – If you do not see something you need….Just Ask! From Mild to Wild!
**PTC/PTR Series** - Gas Discharge Tubes (GDTs) – The most common coaxial protection technology on the market, useful for any DC-Pass application and available for most any RF Power level.

- **PTC** - Fixed GDT Devices: These have a permanent GDT installed at the factory. Most common RF arrester type sold and used.

- **PTR** - Replaceable GDT Devices: These have a replaceable GDT element, for high-exposure areas or to provide guaranteed serviceability over the product’s lifetime

**Features Include**

- DC pass ability
- Wide RF Pass Band
- Multiple Strike Capability
QSS/QWS Series - Quarter Wavelength Stubs – The highest performing single-stage protection technology for coaxial applications where the best protection is required.

Features Include

- Robust Protection – Unmatched Surge Ratings and Lifetime – No Active Protection element to wear, age, or fail
- NOTE: Will pass RF Power only – No DC Pass ability
Fast Response/Multistage Protection Technology

- **Fast Response** –
  - **FPL Series** – Multistage “Fine” protection for GPS Receivers, providing much better energy reduction than GDT devices for sensitive GPS Receivers. Covers all GPS and other global navigation bands with either N-type or TNC connectors.
  - **BTL Series** – Multistage Arrestor and DC Bias-Tee device, providing a Bias-Tee for feeding power to Tower Top Equipment and built-in Lightning Protection in a single device, 7/16 DIN connectors.
  - **PGT Series** – Hybrid Arrestor designed for Telecom applications, DC Pass with high RF Power ratings, 7/16 DIN connectors.
  - **FPN Series** – Multistage Arrestors for ESD or HEMP/NEMP protection, not available outside United States, Contact NexTek for more information.
Selection Questions

- Do you need to Pass DC Power on the coaxial line?
  - If yes, look into GDT or Fast Response devices
  - If no, move onto next question below

- Is your RF pass band <400MHz?
  - If yes, look into GDT or Fast Response devices
  - If no, look into Quarter Wavelength Stub Devices
How much RF Power will you need to pass?
- Cross check this information with the unit or family you have chosen...Adjust the Protection Voltage of GDT or Fast Response solutions accordingly.

What is your connector preference?
- NexTek offers units with Type N, TNC, SMA, 7/16 DIN, BNC, F (75Ω), MMCX, and others… If you do not see something you need, please ask us!

What type of Surge Threat must be protected against?
- Lightning (LEMP), Static (ESD), or HEMP/NEMP (fast response)?
- Is there a regulation or industry standard which gives details?
Product Family Chart – By Protection Technology

Protection Technology

- Fixed GDT
  - PTC S
    - N-type, TNC, BNC, SMA
    - DC-3.0GHz
  - PTC E
    - N-type, SMA, DC-6.0GHz
  - PTC G
    - SMA, TNC
    - DC-12.5GHz
  - PTC F
    - F-Type 75Ω
    - DC-2.5GHz

- Replaceable GDT
  - PTR S
    - N-type, TNC, BNC
    - DC-3.0GHz
  - PTR T1, K1
    - 7/16 DIN
    - DC-1.0GHz

- ¼ Wave Stub
  - QSS
    - N-Type, TNC
    - 0.3GHz – 6.0GHz
  - QWS
    - N-type
    - 2.2-18.0GHz

- Fast Response
  - FPL
    - N-type, TNC
    - 1.15-1.61GHz
  - BTL
    - 7/16 DIN
    - 0.82-2.20GHz
  - PGT
    - 7/16 DIN
    - 0.82 – 2.20GHz
  - FPN
    - Contact NexTek for Information!

NexTek Coaxial Lightning Arrestors

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What is the connector type being used?

What is the frequency being transmitted?

Do you need to pass dc current on the center conductor?

What is the RF Power level of your Transmitter, if there is one?

What is the threat type [Lightning, ESD, High Speed] and the related transient protection standard (if applicable)?