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SHF Cable Assemblies

SHF is designed cable assembly brand since the early 80's. Both cable manufacturing and cable assembling are made in house with specific designed equipments. SHF Cables belong to PTFE microwave cables. This offer primarily focuses on performance and quality attributes and employs high temperature Teflon© materials and plated conductors which offer better performances than standard RG or Foam types coaxial cable.

SHF Cable Assemblies

The SHF cable assemblies family has been developed and continuously improved to fit applications such as ground defense, civil and military airborne, where the lowest loss, highest performance, best phase stability, excellent return loss as well as mechanical robustness are of the utmost importance.

The master of dielectric process technology significantly improves the electrical properties of the product. Other highlights include, excellent return loss and good phase stability.

Low Insertion Loss

The construction of SHF cables is a solid silver-plated copper wire center conductor, encased by a wrapped ultra low density PTFE dielectric. Responsible for the shielding is a wrapped silver-plated copper tape, covered by a silver-plated copper braid. The cable is jacketed with Fluorinated Ethylene Propylene (FEP).

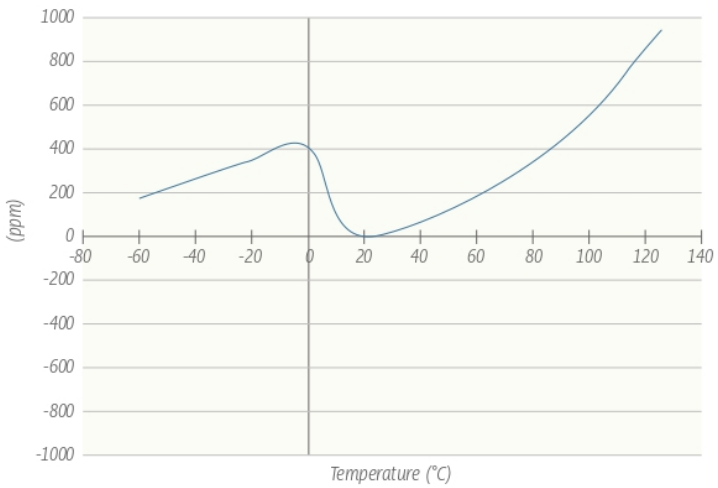
The expanded ultra low density PTFE dielectric is responsible for the loss performance of SHF cables. With a dielectric constant of $\varepsilon r = 1.40$, most of SHF cables are claimed to deliver the lowest insertion loss currently available in their class.



Phase change vs temperature

CW power capability and the phase stability versus temperature offer a great advantage in applications such as phased array antenna systems and also helps to simplify the adjustment of radars.

SHF5M - SHF8M (Typ.)



Environmental Versions

The SHF cable assemblies have been specifically developed for defense systems. Based on the same RF line performance different environmental versions are available:

- *General Interconnect (GI) for protected environment*
- *OutDoor (OD) for ground and navy systems*
- *Armored (A) for harsh mechanical resistance*
- *LightWeight (LW) and AirFrame (AF) for airborne applications*

Application Codes

Several cables belong to different environmental versions. For each cable we identify an application code using the following table:

- *(A) Armored*
- *(AHD) Armored Heavy Duty*
- *(AF) AirFrame*
- *(GI) General Interconnect*
- *(LW) LightWeight*
- *(OD) OutDoor*
- *(UF) Ultra Flexible*
- *(ULL) Ultra Low Loss*

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