

Qualifications

- Our manufacturing facility is qualified under the IQMS Requirements for Aviation, Space and Defence Organizations, viz. **AS9100C Rev D & ISO 9001:2008**
- RF & Microwave Cable Assemblies are **CEMILAC Type Approved for all Indian Military Airborne Platforms - Fixed and Rotary Wing**
- NKRF is registered with NSIC vide NSIC/GP/BAN/2015/0017395 Dt 14.12.2017
- Our cable assemblies are **qualified for Higher Vibration applications** i.e.
 - Sine 30g (5Hz – 2000Hz),
 - Random 17grms (20Hz – 2000Hz) &
 - Shock 50g peak, 5msec, half sine
- NKRF has adopted Industry best practices to build traceability & heritage for all its products

NKRF's Current Installed Capacity (Monthly)

Sr.	Type of Products	Monthly Installed Capacity
1	Clean Room Class 100K	1800sft.
2	RF & Microwave Cable Assemblies, DC to 40 GHz. TVAC Qualified Cable Assemblies. Ruggedized / SS Jacketed Cable Assemblies	900 nos.
3	SFTP / UTP 10/100/1000Mbps	1000 Nos.
4	DVI / D38999/ USB Extender/ DC/ Power/ Signal / Composite / Multiport Cable Harness	600 nos.

AS9100 Capability Matrix

RF & Microwave Cable Assemblies

- 65GHz Low Loss, High Performance Coaxial Cable Assemblies.
- Hand-formable (Re-Flex™) & Semi-Rigid Assemblies upto 40GHz.
- Phase & Amplitude Matched Assemblies.
- Thermo-vacuum Compliant (5×10^{-6} Torr), Out-gassing Compliant, High-Power Cable Assemblies (-50°C to +135°C).
- D38999 mount RF & Electrical Composite Cable Assemblies, (Size 8 / Size 12/ Size 16)
- High Frequency SMP (GPO) / SMPM (GPPO) Miniature MW Cable Assemblies
- Component Integration & Assembly (RF & Electrical)

DC & Signal Cable Harness

- D38999 mount DC/ Digital Cable Harness.
- Data Cable (Cat 6 & Cat 7) Outdoor Ruggedized Assemblies.
- DVI Cable Assemblies.
- USB Cable Assemblies.
- Electrical, Signal and RF Composite Cable Harness.

Precision Hand Soldering Capabilities

- NanoD, MicroD, D-Sub Based Cable Harness (Crimped & Soldered Options).
- High Density PCB Assembly
- Soldering & Testing of SMD components on ROGERS® soft substrate.

Ruggedization & Special Jackets

- Zero Halogen Low Smoke Cable Assemblies.
- Internally Ruggedized Assemblies, Crush ≤ 1.75 lbs/inch. (Indoor / Outdoor)
- Externally Ruggedized SS Jacketed Assemblies, Crush ≤ 400 lbs/linear inch.
- Custom Shielded Cable Assemblies – Kevlar®, Weather proof – neoprene, Fire resistant - Nomex®, Abrasion & High Temperature Resistance PEEK® Braid, Pressure tight Flexible SS Conduit.
- Aramid Jacketed Cables Assemblies
- Tefzel jacketed cables for higher RAD Hardness Requirements.

Additional Qualification for even more demanding applications

High Vibration

- Sine Vibration Exposure = 30g Sweep Rate; 4 Octave/min/axis, 5Hz – 2000Hz
- Random Vibration Exposure =17.16grms; 20 minutes/axis, 20Hz – 2000Hz
- Shock Exposure = 50g peak; No. pluses : 6 / axis, 5 msec, half sine

Thermo-Vacuum Qualification for Ground and Space applications viz.

- Outgassing Compliance to TML, CVCM, RML & WVR specs for on-board applications
- Thermal cycling from -50°C to +100°C at 5×10^{-6} Torr.
- IR, DWV, Corona Tests.
- 30MRAD exposure for radiation hardness testing. Test for upto 100MRAD in progress
- Radiographic Analysis of all soldered joints.
- RF leakage tests upto 18GHz (-100dB)

Class 100K Clean Room

- Interlocked Air shower
- Manpower PAX300 Certified.
- IPC 610E Qualified