

Radio Frequency High Temperature Operating Life (RF HTOL)



Reliability Testing



Why Work with Us?



Affordable Price

Up to 40% lower than industry pricing



Free Consultation

Before and after service



Continuous Communication

During the entire testing process



ISO, AEC, IPC

Certified operations



What is an RF Device

- Device transmitting or receiving a signal wirelessly
- Common in communication and automotive industry
- Frequency range available for testing: 1 GHz to 28 GHz



What is HTOL

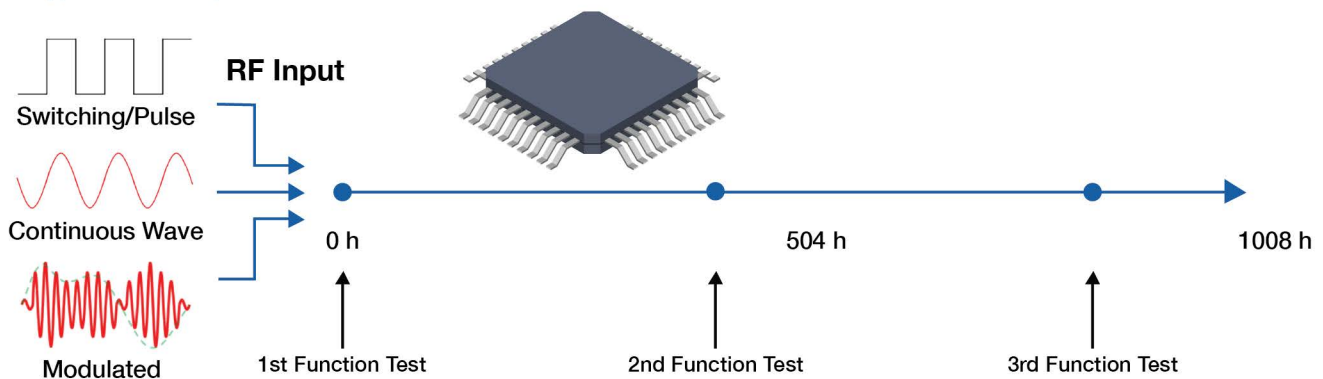
- Effects of bias conditions and temperature on devices over time
- Typical conditions: 125°C; 1,008 hours (or JESD22-A108)

RF HTOL Procedure

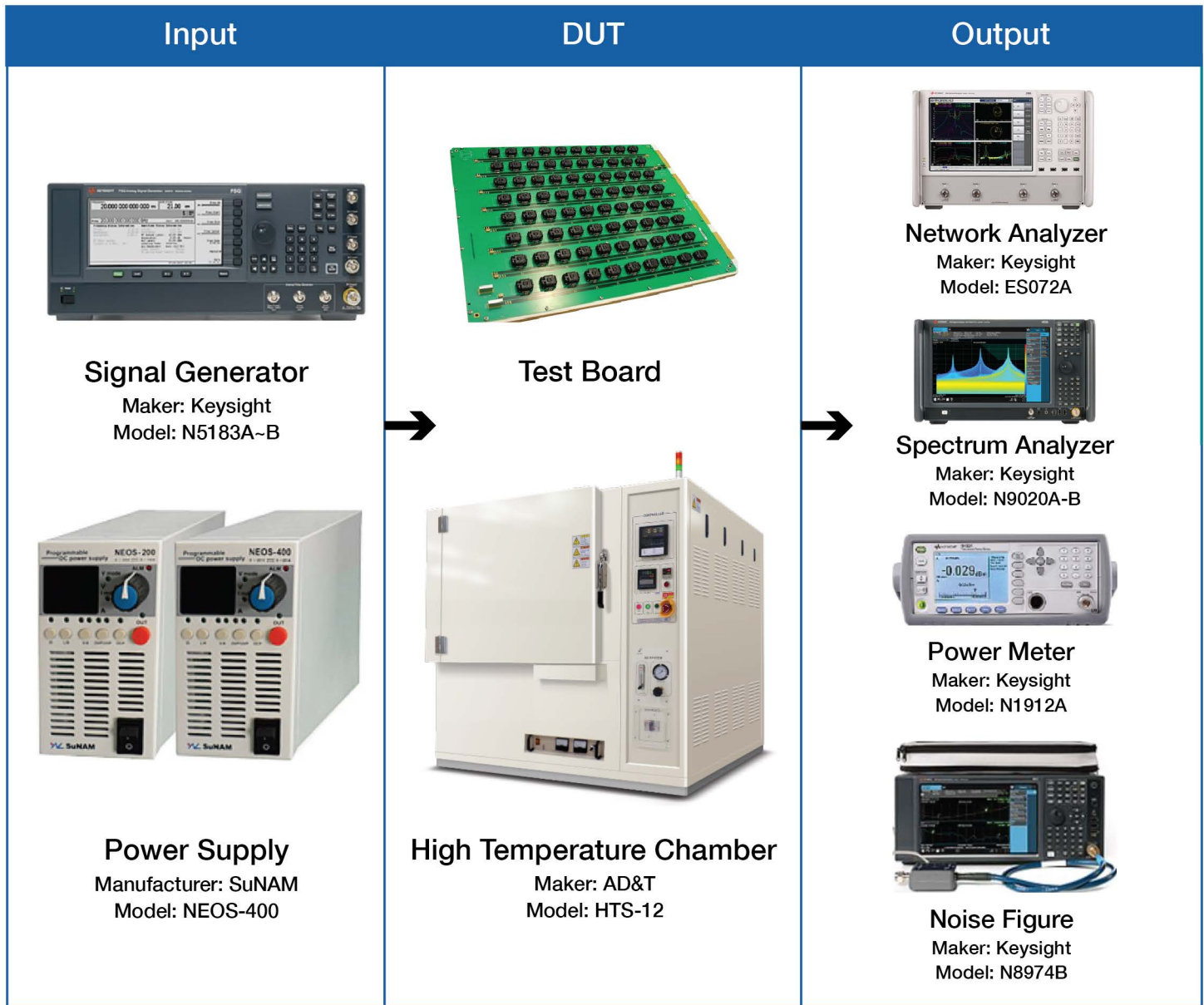
RF HTOL (JESD226) is testing RF devices response to various RF inputs under high temperature.

RF HTOL = HTOL + Functional Test on RF Device

The typical test sequence is described below:



The inclusion of the functional test in the sequence addresses time-zero requirements. The signal produced by our high-quality generators is very accurate and stable over time allowing us to create reliable statistics of the components' lifetime.



Functional Testing: Measured Parameters

Measured Parameters	Conditions
S parameter	Ratio of output voltage to input voltage over the frequency distribution
Third-order Intercept Point (IP3)	IM (Intermodulation Distortion) is measured and reflects the DUT non-linearity which produces additional intermodulation when more than two tones are applied. IP3 is then calculated and used as a figure of merit for IM3
P1dB, P3dB	Automated sequence measures 1db gain compression point (P1dB) considered to be the limit of linear operation of the amplifier as well as the 3dB compression point (P3dB) that is pretty close to the saturated output
Noise Figure	Indicates how much noise is added to the original signal by the various circuit blocks. This is a measurement of the SNR degradation