CLEARCOMM INTERMOD TESTING

- Intermods are created by two or more high powered signals mixing creating unwanted frequency products.

- There are 3 major causes of PIM in passive devices:
  - Poor contact junctions
  - Components made with, or plated with materials that exhibit some level of hysteresis, i.e. Nickel, Iron, etc.
  - Contamination

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CLEARCOMM INTERMOD TESTING

- Acceptable levels of PIM are extremely low and difficult to measure accurately. Often below -150 dBc
- As compared to S parameters, PIM cannot be simulated or predicted using analytical software.
- The only way to determine if a device generates PIM, and to what level, is to measure it.
- Testing to AQL levels is misleading because PIM is very unpredictable and can be generated in what appear to be perfectly designed and constructed devices.

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CLEARCOMM INTERMOD TESTING

- How to Minimize Passive Intermods
  - Avoid the use of Ferrite materials
  - Minimize the number of contact junctions
  - Design all contact junctions in a way that they are precise and under sufficient pressure to maintain good contact.
  - Solder or Weld all junctions where possible
  - Avoid dissimilar metals in direct Contact
  - Plate all surfaces to prevent Oxidation
  - Make certain Plating is uniformly applied and sufficiently thick

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CLEARCOMM INTERMOD TESTING

- ClearComm has custom designed our in house PIM Test Setups for great dynamic range and frequency coverage.

- PIM testing capabilities from 700 – 2200 MHz
- Dynamic Range is >170 dBc

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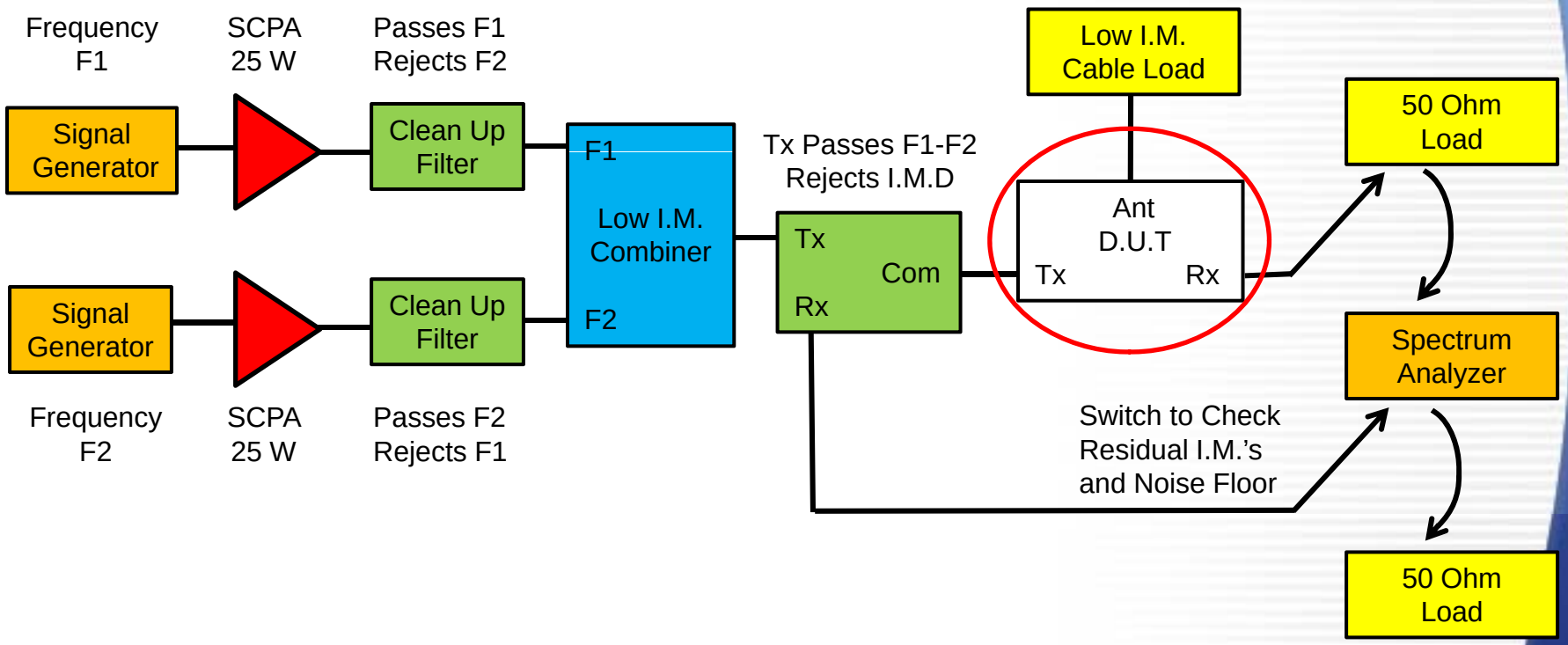
TWO TONE INTERMOD TEST SET



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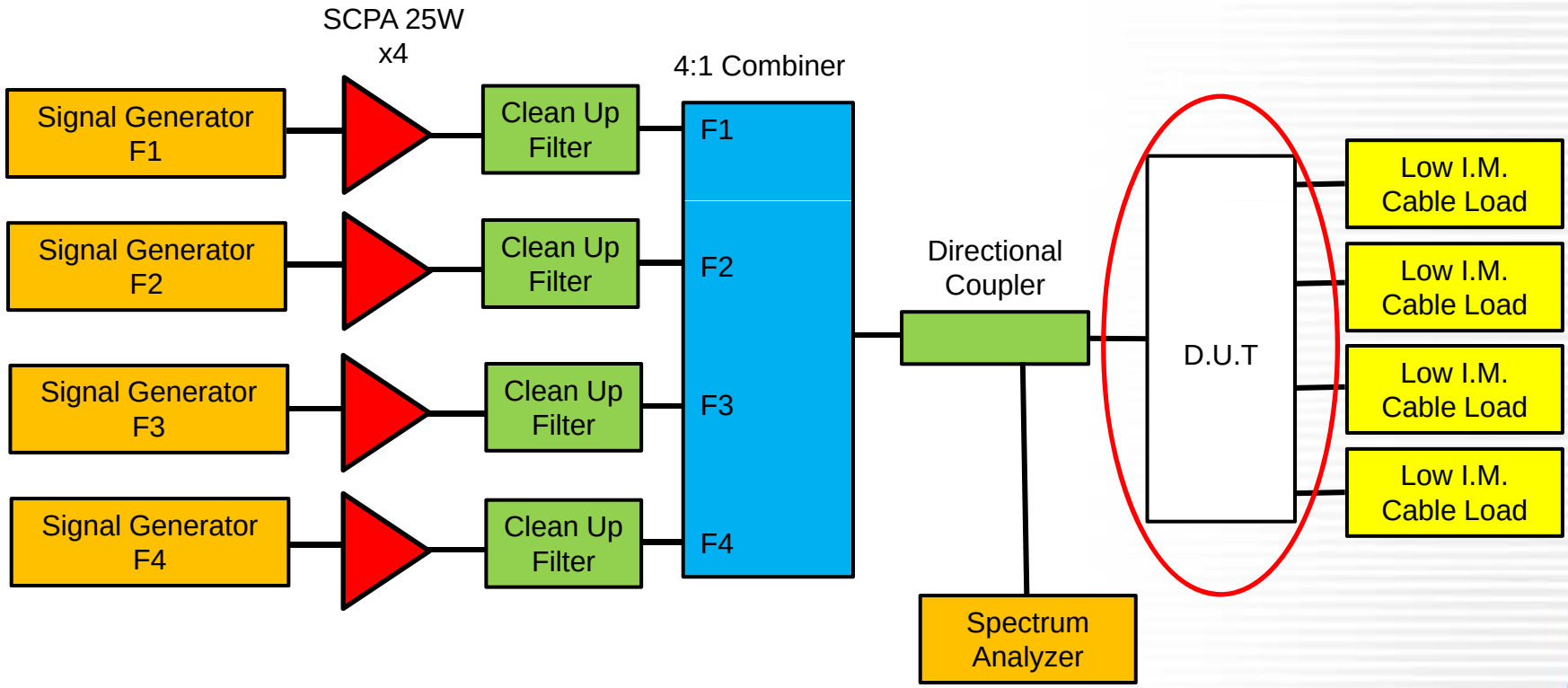
FOUR TONE INTERMOD TEST SET



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