

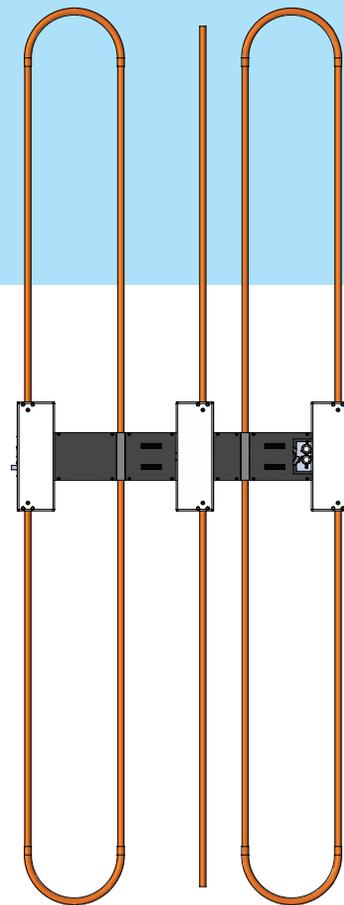
WHAT'S INCLUDED



SY3-EMC

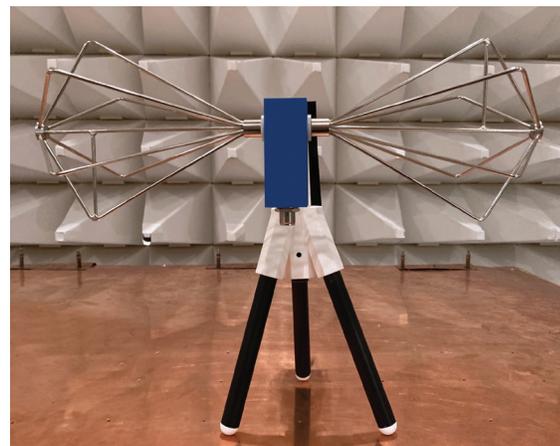
Mechanically tuned 3 element Yagi array; SY3-EMC Yagi shown inside a semi-anechoic EMC chamber.

Non-metallic FRP antenna stand included with system.



OptimizIR-EMC

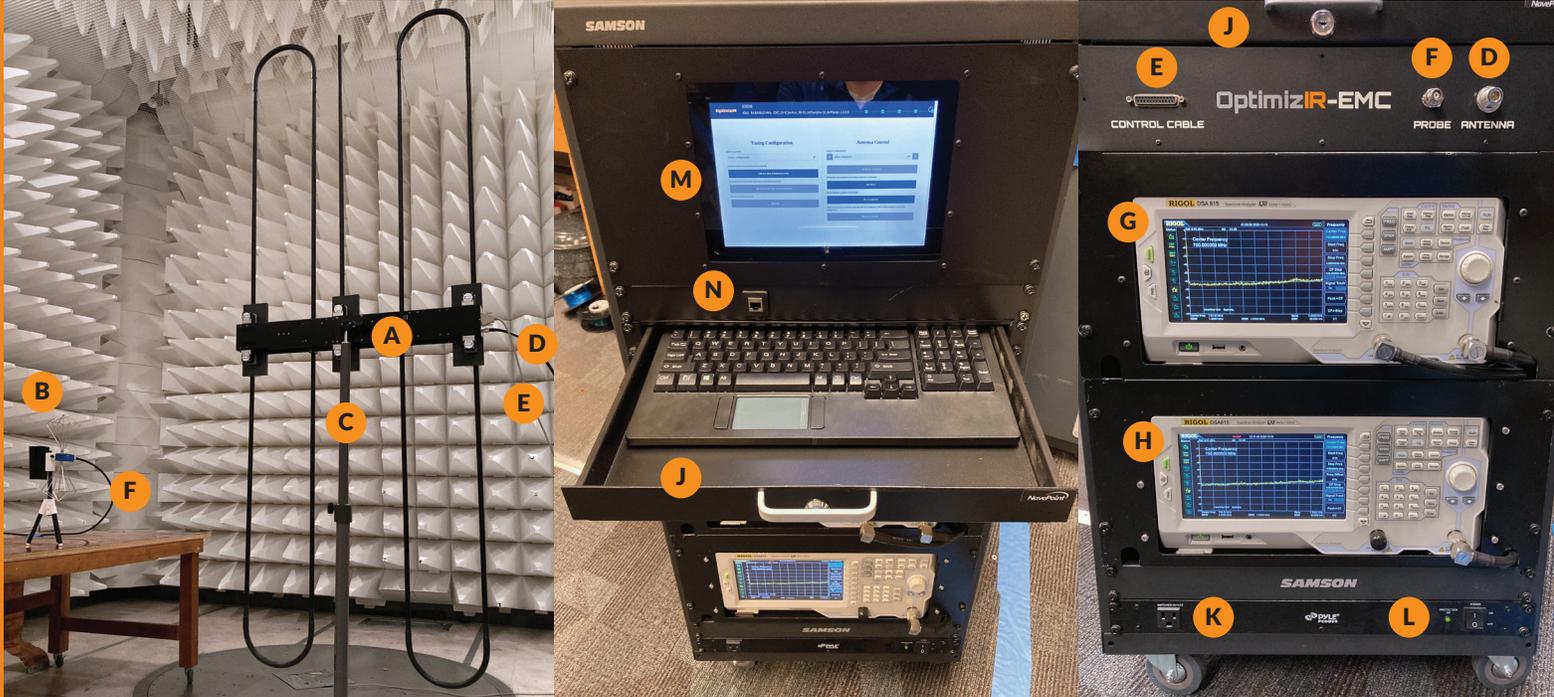
Auto-tune electronic analytics tower; This unit is located outside of the EMC chamber.



Mini-Biconical Receive Antenna with Included Non-Conductive Stand



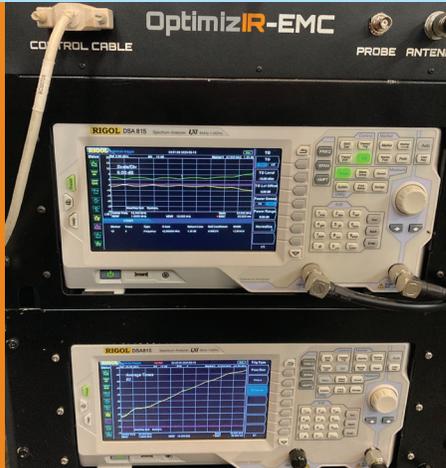
KEY COMPONENTS



| KEY | ITEM | DESCRIPTION |
|-----|-------------------|--|
| A | SY3-EMC | 30-200 MHz mechanically tuned Yagi antenna |
| B | Receive Antenna | Mini-Bicon receive antenna (used during tuning process) |
| C | Antenna Stand | Adjustable FRP antenna stand for both horizontal and vertical test positions, included with system |
| D | Coaxial Cable | LMR-400F coaxial cable, 50 ohm |
| E | Control Cable | 25 pin control cable (powers antenna) |
| F | Coaxial Cable | Receive antenna coax cable |
| G | Spectrum Analyzer | System embedded spectrum analyzer with signal generator measures field strength |
| H | Spectrum Analyzer | System embedded spectrum analyzer measures SWR |
| J | Keyboard Tray | Lockable keyboard for operating user interface display |
| K | Auxiliary | Auxiliary power plug 110 vac |
| L | On/Off | Power switch |
| M | User Interface | User interface monitor/display board |
| N | Ethernet | Ethernet communication for remote operation |



HOW IT WORKS



INSTRUCTIONS

1. Position antenna on a stand inside the EMC test room at 1 meter away from EUT and appropriate height above ground; 25 pin control cable and coax cable are connected to OptimizIR-EMC which is located outside of the EMC test room; Mark the location of the stand on the floor in case antenna is accidentally repositioned.
2. Mini-Biconical receive antenna is placed above the bench and connected to the OptimizIR - EMC.
3. Using the patent-pending user interface on the OptimizIR-EMC, tune for horizontal mode (90-120 minutes for fast tune, up to 8 hours for fine tune); Fine tune is acceptable for most situations - this creates an optimized, resonant antenna for each individual frequency within the entire range.
4. When finished with horizontal tune, tilt the SY3-EMC Yagi into vertical position, 1 meter away from the bench and appropriate distance from floor; begin the vertical tune.
5. When the horizontal/vertical tunes are completed, save each tune to memory. Note that the tune process is entirely automatic—no technician or customer equipment is required; Unattended, overnight tunes are completely acceptable; Saved room tunes can often be used again as long as the antenna is placed in the exact original position and orientation.
6. Remove mini- bicon receive antenna from the bench; disconnect both coax cable for the bicon and the coax cable from the SY3-EMC Yagi; connect the antenna coax directly to the customer RF source.
7. During the equipment test, customer will utilize their own RF source and field probes.
8. Typical time delay between antenna adjustments is 1-2 seconds.
9. Equipment for the OptimizIR-EMC electronics tower is embedded into the system, and cannot be replaced by customer equipment nor used for other applications.

