

HYDRA xW

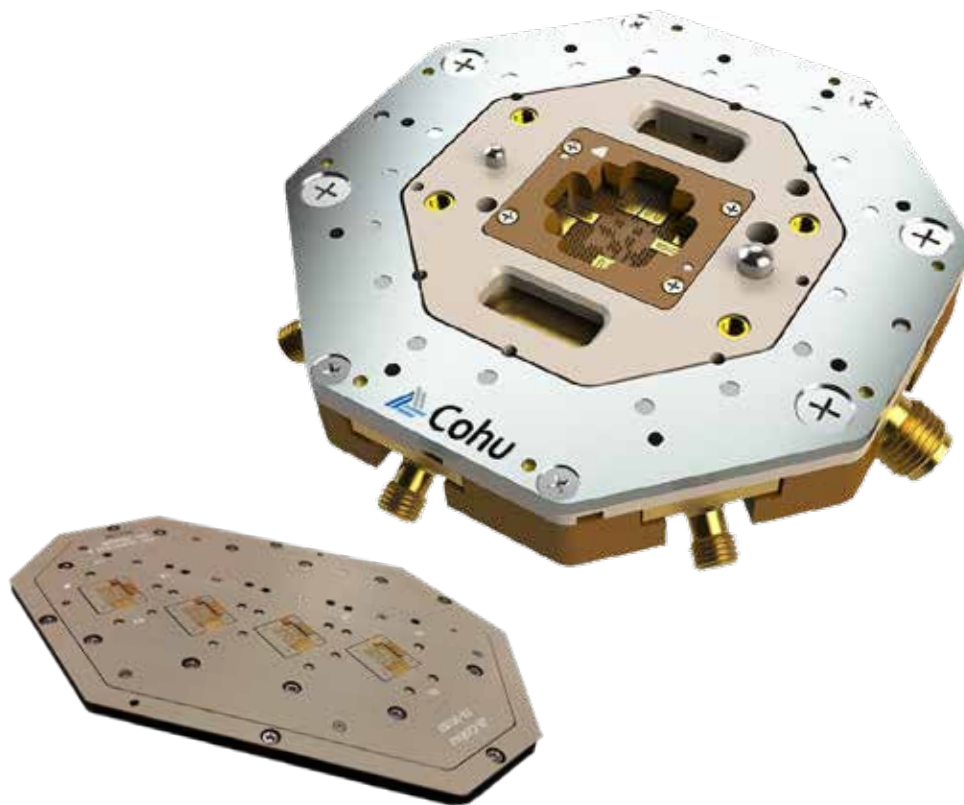
Test Contactor / Probe Head

HYDRA xW



Test Contactor / Probe Head

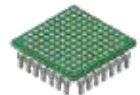
Broadband Production Solution for
cmWave and mmWave up to 100 GHz



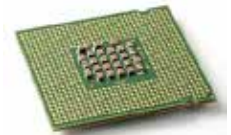
Packages



BGA



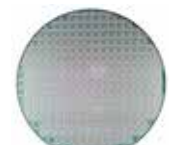
FBGA



LGA



QFN



WLCSP

End Product Markets



Automotive and Power



Mobility



Precision Analog
and Sensors

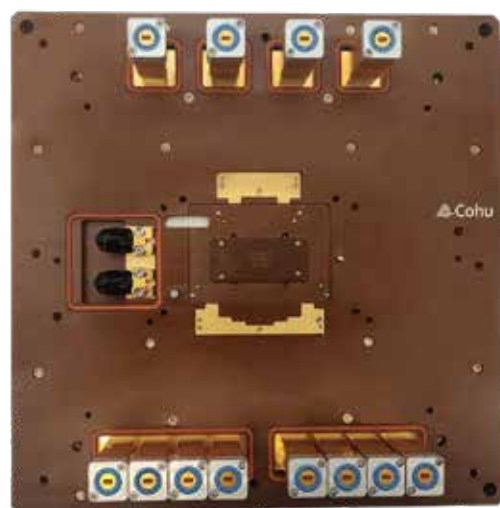


RF

Shortest Possible Path from DUT to Tester,
Coplanar Waveguide Files

Key Features

- **New RF Test Paradigm.** Eliminates boards and pogo pins from the RF signal path to dramatically improve signal integrity.
 - **Shortest RF Signal Path.** Impedance-matched architecture with minimal signal transitions delivers superior RF performance.
 - **Ultra-Fine Pitch Capability.** Supports pitches down to 0.3 mm on contactors and handlers, 0.25 mm on probe heads, and 0.15 mm on probers for advanced device testing.
 - **Production-Proven Reliability.** Validated in high-volume production with over 1.5 million cycles on handler platforms.
 - **Solder-Down Performance.** Solder-down design ensures mechanical robustness and stable electrical performance.
 - **Lab-to-Production Ready.** Supports both lab characterization and volume production testing with consistent results.
 - **Broad RF Applications.** Ideal for backhaul cellular networks, WiGig/WirelessHD, and automotive radar applications.
- Integrated Calibration & Assembly.** Includes USB-based S-parameter calibration files with optional integrated assembly for streamlined deployment.



Designed for Optimal cmWave/mmWave Performance
in Lab and Volume Production Test

ELECTRICAL SPECIFICATIONS

Insertion Loss ⁽¹⁾	4 - 6 dB @ 80 GHz
Return Loss	≤- 10 dB @ 80 GHz
Contact Resistance ⁽²⁾	80 mΩ
Maximum Continuous Current	Varies based on pitch

MECHANICAL SPECIFICATIONS

Manual Test	High-resolution manual actuators available	
Temperature Range	-55°C to +155°C	
Reliability ⁽³⁾ Component Life	Handler leadframe	Prober leadframe
	> 1,500,000	> 3,000,000
Cleaning Cycle (MBTC)	50,000	
Probe Cleaning	50K to 100K	
Compliance	Leadframe	Spring Probe
	200 μm	200 - 650 μm (total - design dependent)
Spring Probe DUT Tip Plating	Homogenous alloy, No1, Gold	
Housing Material	Vespel® SP-1	
Leadframe Contact Material	Proprietary	
Spring Probe Material	Probe choice dependent	
Spring Material	Gold-plated stainless steel	
Configurations / Interface Options	Automated Test: Handler-specific design / configuration, Probeheads for wafer-level test, Test cell package available, High-resolution manual actuators available	

All specifications are subject to change without notification and are for reference only. Use contactor drawing to design interface hardware. For detailed performance specifications, please contact Cohu.

(1) Path includes leadframe and connector, which connects directly to test head instrumentation.

(2) Typical resistance measured between Au plated sheets.

(3) Actual values are dependent on the application (DUT materials, handler kit, maintenance, etc.).