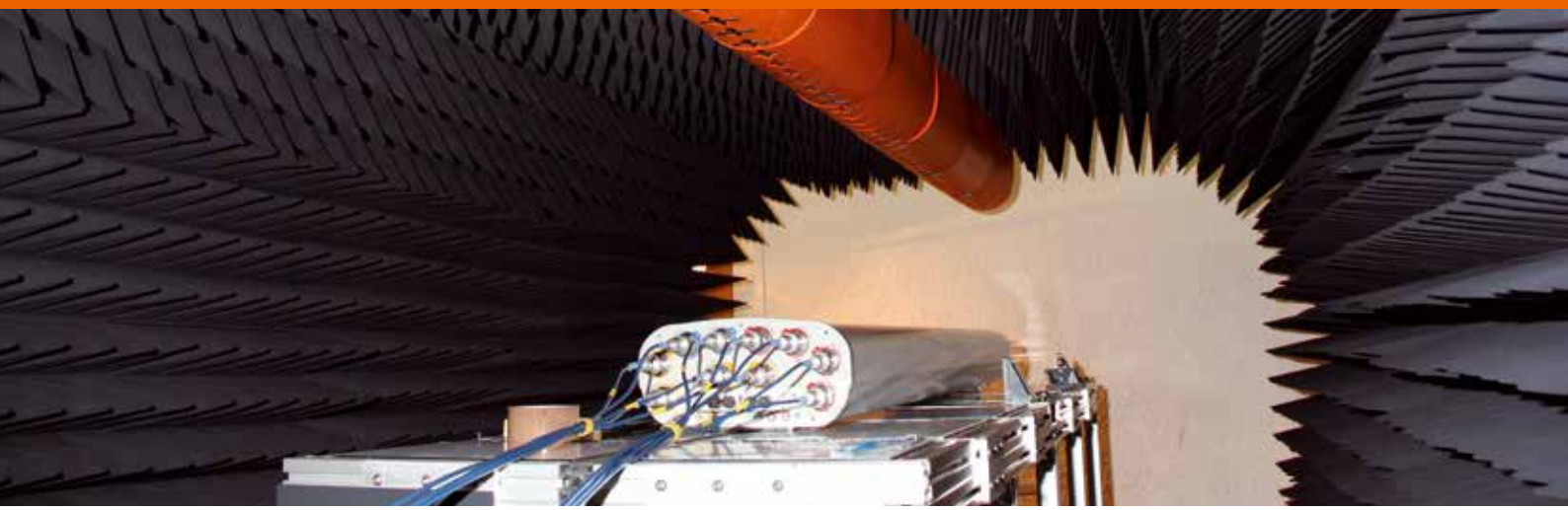
StarProd LTB
Linear Array Antenna
Defect Detection Bench



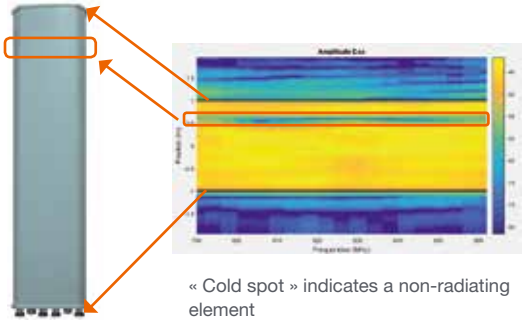
IMPROVE PRODUCTION PROCESSES AND PRODUCT QUALITY

The StarProd LTB is a unique defect detection bench for linear array antennas such as BTS. Tests performed on this bench instantly identify defects such as flawed or absent soldering, swapped wiring or short circuits. Results provide information on the position and type of any existing error. Operators can then immediately step in to make corrections knowing precisely how and where they are needed. StarProd LTB also performs tilt computations which can reveal a misconfiguration, or a mechanical or RF component defect. The end result: improved production processes and product quality.

How does it work?

The StarProd LTB uses microwave electronic scanning technology to evaluate the electromagnetic field along the directive cut of the antenna. A phase-amplitude test is performed using a multi-probe array of dual-polarized sensors which scans up to 16 ports of the antenna within seconds. The field is then reconstructed for visualization in post-processing. If any defects are detected, results show « cold spots » in the radiated field of the Antenna Under Test (AUT), and indicate the nature and position of each defect.

RECONSTRUCTION INTENSITY PLOT



« Cold spot » indicates a non-radiating element

KEY FEATURES

- Gives the status of each element:
  - No defect
  - Swap
  - Open/short
  - Out of tolerance
- Locates potential defects
- Gives the tilt value of each port
- Provides test results in less than 2 minutes
- Keeps misalignment and operator errors in check
- Easy to use: no RF background required, user-friendly software
- High repeatability
- Suitable for directive antennas such as BTS
- Makes systematic testing possible for consistent quality control

STREAMLINING PRODUCTION AND QUALITY CONTROL

- **BTS antennas are increasingly more and more complex, yet many steps in the manufacturing process are still performed manually. As the complexity advances so follows the degree of error. It has become a growing challenge for BTS manufacturers to maintain fast production rates all the while reducing the scrap and rework. StarProd LTB brings an effective solution to these BTS production lines.**
- **StarProd LTB's multi-probe scanner allows for fast analysis and provides precise indications as to the nature and position of defects. Manufacturers can rely on this innovative scanner to quickly test for and detect errors in production, thus improving the production process and increasing the quality and production rate of the antennas.**
- **Installed as a stand alone test bench, or as an integral part of the production line, StarProd LTB streamlines product analysis and allows for the integration of test results directly into traceability reports.**

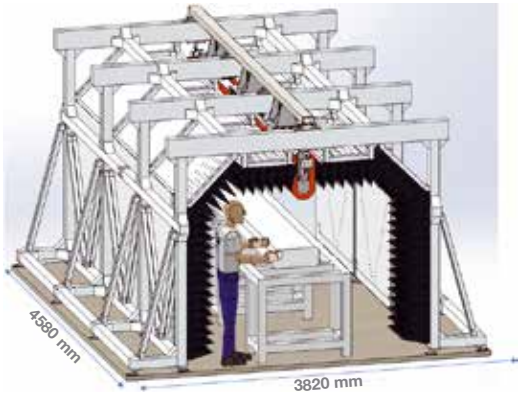
KEY BENEFITS

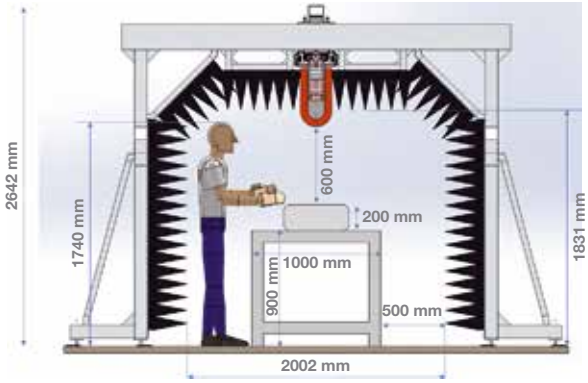
- **Improved product quality**
- **Reduced % of scrap and rework**
- **Fast testing**

Tables provide information on each element.
In this example, elements 1, 2 and 3 show defective parts/components/spots/areas that will need rework. Indications:
No defect
Swap = switched wiring
Open/short = absent or flawed soldering
Unknown = Out of tolerance

	Name	Color	Elem 1	Elem 2	Elem 3	Elem 4	Elem 5	Elem 6	Elem 7	Elem 8	Elem 9	Elem 10	Elem 11	Elem 12
Port 1	r+		swap (89%)	open/short (100%)	unknown (11%)	ok (0%)	ok (0%)	ok (0%)	ok (0%)	ok (0%)				
Port 2	r-		ok (0%)	ok (0%)	ok (0%)	ok (0%)	ok (0%)	ok (0%)	ok (0%)	ok (0%)				
Port 3	rr+		unknown (12%)	open/short (100%)	unknown (29%)	ok (0%)	ok (0%)	ok (0%)	ok (0%)	ok (0%)				
Port 4	rr-		ok (0%)	ok (0%)	ok (0%)	ok (0%)	ok (0%)	ok (0%)	ok (0%)	ok (0%)				
Port 5	bL+		open/short (100%)	unknown (17%)	ok (0%)	ok (0%)	ok (0%)	ok (0%)	ok (0%)	ok (0%)	ok (0%)	ok (0%)	ok (0%)	ok (0%)
Port 6	bL-		open/short (100%)	unknown (17%)	ok (0%)	ok (0%)	ok (0%)	ok (0%)	ok (0%)	ok (0%)	ok (0%)	ok (0%)	ok (0%)	ok (0%)
Port 7	yL+		open/short (76%)	ok (10%)	ok (10%)	ok (0%)	ok (10%)	ok (0%)	ok (0%)	ok (0%)	ok (0%)	ok (0%)	ok (0%)	ok (0%)
Port 8	yL-		open/short (100%)	ok (10%)	unknown (14%)	ok (0%)	ok (0%)	ok (0%)	ok (0%)	ok (0%)	ok (0%)	ok (0%)	ok (0%)	ok (0%)
Port 9	yyR+		ok (0%)	ok (0%)	ok (0%)	ok (0%)	ok (0%)	ok (0%)	ok (0%)	ok (0%)	ok (0%)	ok (0%)	ok (0%)	ok (0%)
Port 10	yyR-		ok (0%)	ok (0%)	ok (0%)	ok (0%)	ok (0%)	ok (0%)	ok (0%)	ok (0%)	ok (0%)	ok (0%)	ok (0%)	ok (0%)

MECHANICAL DIMENSIONS





Maximum DUT Weight : 150 kg
Maximum DUT Size: 2700 x 600 mm (Length x Width)

mvg Microwave Vision Group

Contact your local sales representative for more information
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