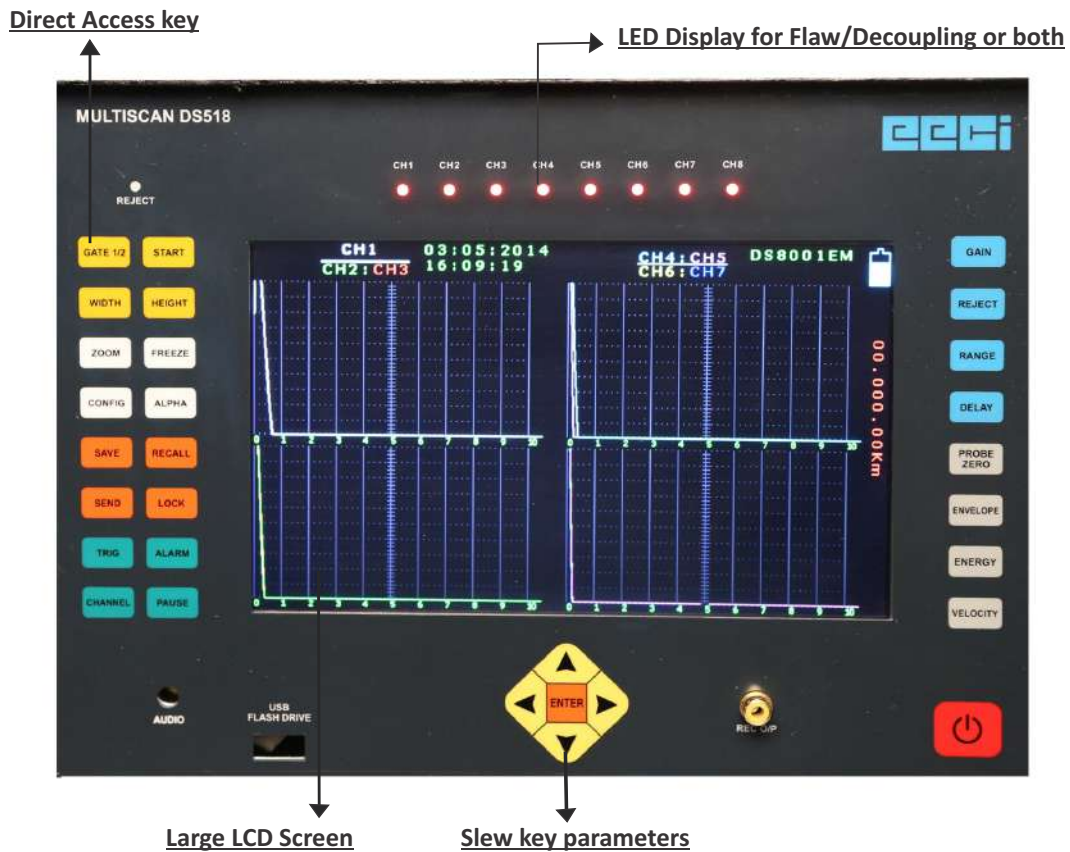


MULTICHANNEL DIGITAL ULTRASONIC TEST ELECTRONIC DS-5XX



DS-518 is a Multichannel Digital Ultrasonic Flaw Detector. It uses latest in Micro-Component technology to give features and performance not found to its class of equipment. Its 8 Channel are independently Adjustable for Gain, Range, Gate and other parameters. Each Channel has alarm LED which are Prominently placed for operator visibility.



GENERAL FEATURES:

- Modern state of art technology.
- Portables for field use.
- Large TFT color LCD with LED back light.
- User friendly with direct access to frequently used functions.
- External battery pack, Li-ion rechargeable battery pack for 12hrs Operating time.
- Use it in Lab, Site shop floor for a variety of application
- Direct access functions key, easy to operate.

UNIQUE FEATURES:

- Multichannel flaw detector with its each of the eight Channels can have its own parameter values for Gain, Delay, Probe zero, test range, Gate functions.
- Built in a single compact unit.
- LCD screen can be set to display 1/2/4 or 8 CH A-scan displays simultaneously.
- Separate color for each of the 8 Channel A scan Pattern. With this facility the operator can easily locate the defect Channel and save the time.
- Equipments having LED audio/visual alarm separate for each channel. Each LED will give you red & green color indication for Flaw & Decoupling.
- Continuous A- Scan pattern recording can be possible with additional attachments.
- Can be upgrade for 16 channel application.

APPLICATIONS:

DS 518 Electronics can be used with multi probe arrangement. The same may have T/R probe, Delay Line Probe, Immersion or Angle probe. with suitable mechanic it can be use for rapid scanning of jobs like:

- Pipe
- Round Bar
- Square or Rectangle Solid
- Plate, Coil
- Automobile parts
- Pipe weld testing
- Cylinder

Pipe Body:

The Hand moving manipulator having 5 no.s probe arrangement to test for transverse OD & ID defect in pipe. The manipulator has designed to test 35 mm circumferential length including 10% probe beam overlap.

The probes are incorporated with 45 degree angle wedge. Each probe have separate water coupling arrangement.



Plate Testing:

The Electronics can be used with Multi - probe trolley based probe mechanics.

The Trolley can be design for Grid scanning, 100 % scanning with overlap.

The Trolley may have T/R probe, Normal Probe, Delay Line Probe or Angle probe, etc.



Bar Testing:

A set of up to 4 Nos. Probes, mounted on a special probes holder will test for core defect using normal incident beam. The four probes are positioned @90° apart at 45°, 135°, 225°, 315°. They are focused to scan the core area of the bar.

Water immersion technique is used. The job is immersed in a test tank filled with water and the probes traverse its surface along the length of the bar for scanning or the job will travel within probe mechanism.



Rail Testing:

The Rail Testing instrument can be configured for Single Rail Testing, & Dual Rail Testing. Using contact probe or wheel probes.



SPECIFICATION:

| | | | |
|---|--|----------------------------------|---|
| Receiver bandwidth | : 0.5 to 15MHz by broad band amplifier. | Measurement Units | : Millimeter |
| Gain | : 0-80dB, 0.1,0.5,1,2,6,12dB selectable | Parameter Display | : Permanent display -Horizontal & vertical graticule. Common display for all channels-- Lock, Battery status, zoom, Freeze, Active freeze. Display for individual channels--Gain, Beampath, Flawdepth/Thickness, Projection Distance, Envelop, Probe zero, Delay, Range, Reject, Gate1/Gate2 ON/OFF, Gate shift, Gate Width, Gate height, alarm mute, Configuration menu, Memory save, Memory recall. |
| Rejection | : Linear type (0 – 99%) of full screen Height, 1% step Rejection will be displayed in single channel mode. In run all mode it will not be visible. | Display Scheme | : Any one channel on one A scan trace or four A scan traces with two channels each are displayed. Current display freeze & Active freeze, Accumulated display |
| Operating mode | : T-R, T+R by external connection. | Display Pattern | : Filled / Unfilled |
| Test mode | : Pulse reflection or pulse Transmission | Reference pattern Display | : Reference pattern can be displayed at the Background from selected location in Memory |
| Echo display | : Full wave rectified | Graticules | : 5div(H) X 5div(V), further sub divided into 10 small divisions |
| Vertical linearity | : 5.00% | Battery Indicator | : Battery status indicator with auto shut Down |
| Range | : 10mm min. – 725mm. Max (@5890M/sec) -Continuous variable | Memory | : 200 multicolored 'A' scans memory with calibration parameters and trigonometric values , 15 calibration sets. |
| Delay | : 0-1000mm continuous variable | Interface | : PC & pen drive connectivity via USB |
| PRF | : In built Auto limiting for set parameters | Lock | : Keyboard can be lock. |
| Velocity | : Velocity 2000m/s to 9999m/s | Probe connector | : BNC type |
| Time base linearity | : 1% (\pm 0.5%) | Trace Color | : Selectable white and black background; CH-1---WHITE ; CH- 2---GREEN; CH-3---ORANGE; CH-4---LIGHT BLUE; CH-5---PINK; CH-6---YELLOW; CH-7---BLUE; CH-8---OTHER COLOR |
| Triggering | : Internal | PC software | : EECOWIN PC interface software Can upload saved "FRAME" set to PC through USB |
| Monitor Gates | : 2 Gates for all channels ; Width 1/10 screen to full screen; Height 1/10 screen to 99% ; Gate start measured from initial Pulse | Accessories | : Li-ion Battery pack. External Battery charger cum mains Adaptor Input , 90-240V AC, 50-60Hz. Protective Case. Instruction manual. |
| Monitor Logic | : +/- Logic selectable | | |
| Alarm | : Audio/visual (Audio mute) Each channel will have RED LED for gate1 function and GREEN LED for gate2 function | | |
| Trigonometric Functions TRIG (Job thickness) | : Beam path, Flaw depth & Projection Distance : 0.1 to 300mm | | |
| Measurements | : Echo height – \pm 1.0% tolerance Thickness (Echo to Echo) – \pm 0.1mm or \pm set range/300 which ever more with peak & flank option. | Note | : The equipment will be available as compact portable unit or mounting with 19 inch standard rack panel. |