PULSER RECEIVER

UTPR-CC-35

www.tecscan.ca

Ultrasonic Pulser-Reciver

The UTPR-CC-35 is a computer-controlled, multi-channel ultrasonic inspection platform that can be configured as an 8 channel ultrasonic unit down to a conventional single channel pulser-receiver, and is offered as a tabletop or a rack-mountable instrument. Combining the UTPR-CC-35 with any of our TecView™ software packages would result in powerful ultrasonic inspection results

The UTPR-CC-35 is designed with applicability in mind, with specifications that can meet the most challenging demands.

AEROSPACE...

With its reliable and powerful pulsers, pre-amplifier and receiver bandwidth adjustments, as well as the ultrasonic inspection and imaging software TecView™ UT, the UTPR-CC-35 can manage inspections of composite materials as well as aluminum or other metallic structures.

PIPES & TUBES...

Used with the proper probes and software, the UTPR-CC-35 is the perfect tool for weld inspection with conventional, angle beam or TOFD ultrasonic scanning, as well as thickness and corrosion mapping.

INLINE SYSTEMES...

With its multi-channel capabilities, the UTPR-CC-35 can be used to monitor and test parts on the production line from multiple angles and methodologies in a fast and efficient way.

MORE...

The UTPR-CC-35 is a universal solution for single and multiple channel ultrasonic inspections. Whether the application requires repeatability, near & far surface resolution, penetration power or channel configuration versatility, this unit has what it takes to meet the challenge. With a receiver bandwidth adjustable from very narrow to a 35 MHz wide bandwidth and a powerful pulser that can efficiently drive transducers up to 25 MHz, requirements of a wide range of applications can be met by the UTPR-CC-35.

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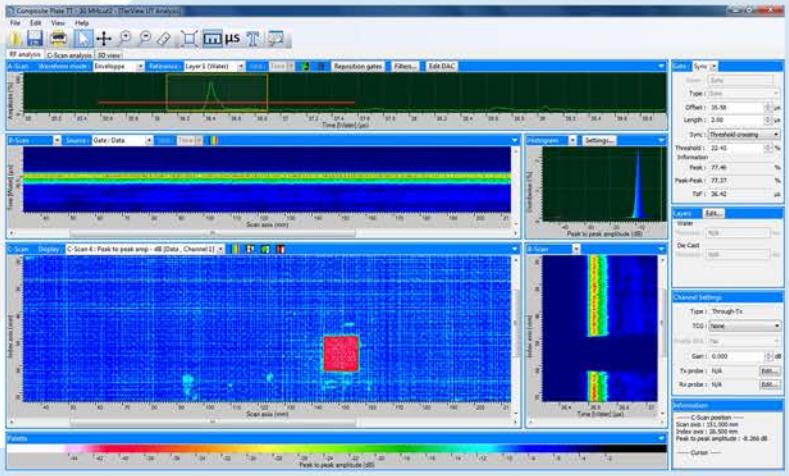
Specifications

CHANNELS

Number of channels	Configurable up to 8 channels
Channels specifications	Independent pulser and receiver on each channel
Channels configurations	Pulse-echo &Through-transmission



PULSER

Pulser type	Negative square wave
Pulse amplitude	-50 to -300 V (1V steps)
Pulse width	30 to 500 ns (0.1 ns steps)
Damping	30 Ω , 33 Ω, 41 Ω, 45 Ω, 78 Ω 97 Ω, 219 Ω, 500 Ω (None)
Rise time	< 4 ns at 300 V & 50 Ω load
Fall time	< 14 ns at 300 V & 50 Ω load
PRF max	5 kHz
Trigger source	Internal/External

RECEIVER

Gain	-3 to 82 dB (0.1 dB steps)
Bandwidth	Broadband: 300 kHz – 60 MHz (-3dB)
High-Pass Filters	300 kHz, 500 kHz, 1 MHz, 2.5 MHz, 5 MHz, 10 MHz
Low-Pass Filters	Broadband (60MHz), 35 MHz, 25 MHz, 15 MHz 10 MHz, 5 MHz, 2.5 MHz
DC offset	-250 to 250 mV (1 mV steps)
Noise level	Typically 140 µVpp input referred @ 80 dB
TT isolation	95 dB

- Independent pulser & receiver per channel
- Square wave for increased penetration
- upto 8 ultrasonic channels
- Computer controlled (USB 2.0)
- Broadband receiver
- Rackmountable

INPUT/OUTPUTS

Computer Interface	USB 2.0
Analog inputs	Receiver input on each channel (BNC)
Analog outputs	Receiver output on each channel (BNC)
I/O	Trigger input/output (BNC)
Probe connection	BNC connectors on each channel

PHYSICAL PROPERTIES

Packaging	Rackmount-ready box
Max Size	(H x W x D) 223mm x 432mm x 343mm (8.75” x 17” x 13.5”)
Power input	115VAC - 230VAC @ 50/60 Hz / 230 VAC @ 50 Hz

Combine The UTPR-CC-35 with TecView™ and Get

- **Intuitive user interface**
- **Full waveform acquisition**
- **Motion control up to 12 axes**
- **Inspection, Imaging and Analysis modules**
- **Live display of A, B and C-Scans**
- **Inspection report generator**
- **Supports Phased Array Testing**
- **C-Scan gating capabilities (up to 16)**
- **Inspection of inclined surfaces**
- **Defect measurement and analysis tools**
- **Histogram analysis**
- **Annotations tools**
- **Data export, csv, dat**
- **C-scans export**