



# Wireless Digital Pocket B-Scan Matrix EU-1C

B-Scan Ultrasonography (USG) is a simple non-invasive tool for diagnosing and evaluating posterior segment in presence of opaque ocular media. Lesions of the posterior segment of eye ball, cataract, vitreous degeneration, retinal detachment, ocular trauma, choroidal melanoma and retino blastoma etc. are the common anomalies detected easily by a perfect B-Scan.

Matrix digital wireless pocket **B-Scan: EU-1C** is an innovative hi-tech USG transducer with built-in rechargeable battery & Wi-Fi connectivity to connect any Android display device such as Mobile or Tablets.

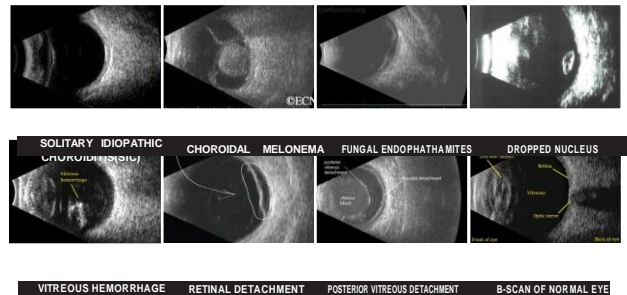
**ONE DEVICE MORE APPLICATION:-** Matrix **EU-1C** is considered to be steps ahead of conventional B-Scans. It works with dual frequency Mode 8 MHz and 11 MHz as desired, depending upon the requirement. It has three modes of operation such as **B mode, Doppler & Col-doppler mode.**

**EXTRA AT NO COST:-** Even though the Doppler mode at low frequency is mostly used for Gyno & other applications, but Col-doppler has useful applications in orbital B-scan too. As we know Col-doppler is the presentation of velocity of U/S in colour scale, Col-doppler images are generally combined with grey scale (B-mode) images to display duplex U/S images allowing simultaneous Visualization of anatomy of the area. Blood flow within the choroidal Melanoma/tumor can be seen in Col-doppler as pulsating channels. The tumor usually demonstrates choroidal excavation and Col-doppler reveals the vascularity of the Leison.

**FLEXIBLE USES:- EU-1C** is a light and portable small device ,which can either be operated by the operator, who does the B-Scan or can also be controlled by the surgeon away from operator(30-40 ft. open space) with the display unit(either TAB or Mobile). Images can be freezed either from probe button or from display panel.

**TINY DEVICE WITH MANY GOALS:- EU-1C** can easily diagnose Choroidal & Orbital anomalies by adjusting the frequency, depth and Gain over the displayunit. EU-1C has a gain control form 30- 105 db, to figure out weaker signals (athigher gain) such as vitreous opacity, PVD & small foreign bodies. But at lower gain, stronger signals (masses, tumors, RD etc.) are easily visualized.

**EXPERT ADVICES:-** For transverse image the marker of Probe head is always oriented superiorly or nasally. As a rule for longitudinal Macula View (LMAC) the marker over the head should be directed towards pupil, so that the optic nerve is seen below Macula. As a standard rule of B-Scan imaging, always try to bring the anomaly of interest to the centre of image, to obtain best resolution by maneuvering the U/S Probe accordingly.



## TECHNICAL SPECIFICATIONS

<b>Probe Type</b> : Convex Array Magnetic Motor driven Noiseless Solid State Probe	<b>Probe Frequency</b> : 8 MHz/11MHz (Switchable)
<b>U/S Mode</b> : B (M), Doppler & C (PD)	<b>Working Duration</b> : 1.5 hr per Full Charging
<b>Charging</b> : Wireless / USB	<b>Connection to Display</b> : Wi-Fi
<b>Weight</b> : < 150 gm	<b>Scanning Mode</b> : Linear Sector Scanning.
<b>Scanning Angle</b> : 70°	<b>Depth of Scanning</b> : 0-80 mm (Selectable 30/40/60 & 80 mm)
<b>Measure Mode</b> : Manual	<b>Clinical Resolution</b> : <0.1 mm
<b>Precision</b> : Lateral : <1 mm, Vertical : < 0.5 mm	<b>Focus Portion (Level)</b> : 3 (20/30 & 40 mm) for better resolution
<b>Gain</b> : 30-105 dB variable	<b>TGC</b> : 8 segments
<b>Zoom</b> : Multi level zooming	<b>Gray Scale</b> : 256 levels
<b>Display</b> : Any Android Device (Mobile/Tablet)	<b>Measurement Functions</b> : Distance Between Points, area of lesions, Angle between points, Perimeter of anomalies.
<b>Cine loop Function</b> : Captures 100 frames of a movieloop of 10 secs.	

**Case Report :-** The selected image frames or video can be saved, retrieved and analyzed for detailed findings and the same can be printed economically through any desk jet or laser jet printers for hard copy presentations.