

EMF Exposure Systems

sXh900/sXh2140

The sXh900 and sXh2140 exposure systems are designed to perform human provocation studies in the GSM and UMTS mobile bands. They are based on patch antennas mounted on the side of the volunteer's head. The antennas are covered with plastic boxes, such that the two systems are not visually distinguishable.



Size	Exposure setup (worn by the subjects or mounted on stands)	40 × 40 × 30 cm (d × w × h)
	Signal tower	60 × 60 × 90 cm (d × w × h)
Signals	Carrier frequency	900 MHz and 2140 MHz
	Modulation schemes	GSM modulation schemes UMTS/3G modulation schemes arbitrary pulse structure continuous wave any AM waveform of 64000 points on request
	Intermittent exposure	arbitrary on/off cycles with 10 s resolution
Dosimetry	10g spatial peak SAR (50 W amplifier)	up to 25 W/kg
	Exposed area	unilateral head hemisphere
	Penetration depth	deep brain SAR ~ 1/10 SAR in cortex (900 MHz) ~ 1/100 SAR in cortex (2140 MHz)
	SAR characterization	functional brain tissue specific including uncertainty due to intersubject variability
Exposure Control	· full software control of the exposure with self-detection of malfunctions · immediate abortion in case of overexposure · blinded exposure protocols · radiated power monitoring and feedback regulation by power sensors · data logging every 10 s	

The complete bundle includes the exposure apparatus, signal tower and PC with controlling software. Also included is installation of the setup at the target laboratory as well as personnel training sessions. Pricing and detailed specifications available on request.

For more information please contact us: customized@itis.swiss.

