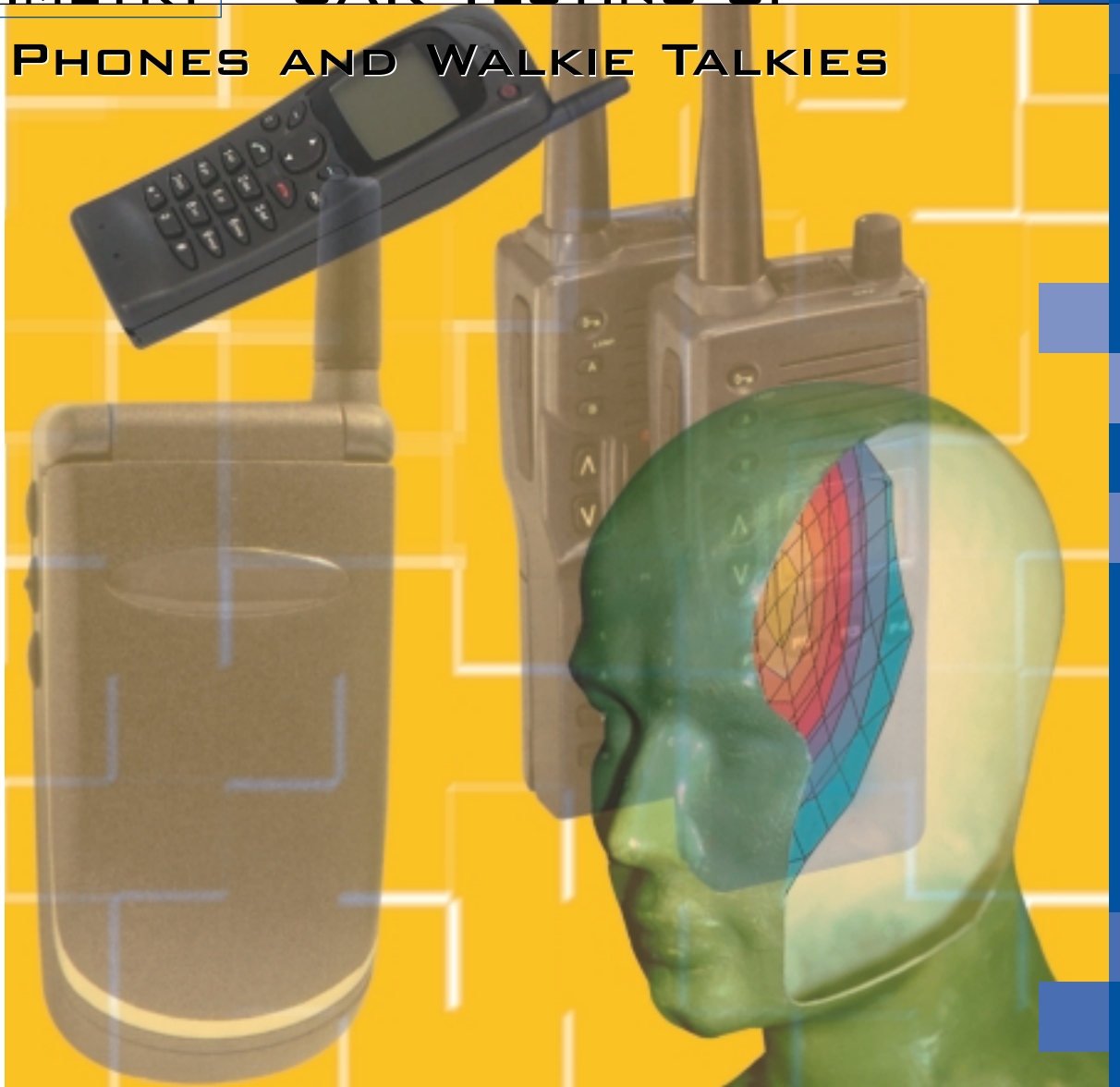
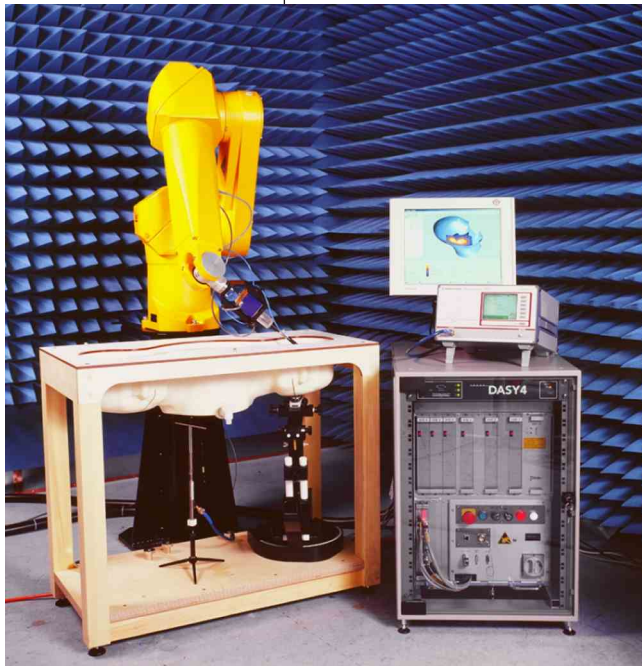


RF DOSIMETRY – SAR TESTING OF MOBILE PHONES AND WALKIE TALKIES



FCC OET65 – USA, ES59005, EN50361 – R&TTE EUROPE,
AS/NZS2772 (ACA), ARPANSA – AUSTRALIA
ARIB STD – T56 (JAPAN)
ANSI C95.1, IEEE 1528
BIO-ELECTROMAGNETIC EFFECTS R & D





RF Dosimetry – SAR Testing of Mobile Phones

Most country's regulatory and standards bodies (FCC, EU, ACA, ICNIRP, ARIB, CENELEC) now require or recommend the testing of low power mobile telecoms equipment (MTE) for compliance with RF radiation safety standards. All handheld or bodymounted MTE must be evaluated against human exposure standards which set basic restrictions for the Specific Absorption Rate (SAR) of RF energy by any part of the human body. SAR is a dosimetric quantity and is defined as the rate at which RF energy is absorbed per unit mass. RF dosimetry is the quantification of the magnitude and distribution of absorbed electromagnetic energy within human and biological objects that are exposed to RF radiation.

In the USA, Europe, Australia and other countries, the scope of the SAR evaluation includes MTE such as GSM, AMPS, CDMA, DECT, CT2/CT3, PHS, spread spectrum devices, PDA and EFTPOS terminals. Two way radios and some wireless (WLAN) devices must also comply.

A precision RF Dosimetric Assessment System (DASY4) developed by the Swiss company Schmid and Partner (SPEAG) is used to perform precise SAR measurements. It consists of a computer controlled, high precision robotics system, robot controller, extreme near-field probes, probe alignment sensor, and the SAM twin phantom containing the brain equivalent material. With a wide range of phantoms and SAR probes, highly accurate SAR evaluations are performed over the range range 27 MHz to 6 GHz.

The system also provides precise measurements to 10 GHz in free space as well as inside tissue simulating liquids and cadavers for bio-electromagnetic research purposes. The flexible data evaluation and visualization capabilities allow electromagnetic design and performance evaluations in other applications including SAR optimization, EMI, EMC, PCB, wireless communications, biomedical applications and industrial RF machines.

The DASY4 fully complies with EN50361, IEEE 1528, the **ACA SAR** mandatory standard 2003, ARPANSA (formerly AS/NZS2772.1), USA FCC Rules per FCC **OET 65** 01-01 guidelines, Japan and international standards and regulations.

One Stop Service for Global SAR Compliance since 1999

Independent and accredited - Reports accepted by ACA, FCC, EU Notified Bodies and regulators around the world. Where ever you are in the world, for the price of a Fedex bag, you can benefit from our very competitive rates.

For more details on EMC Technologies' RF Dosimetry, SAR testing and EME/EMR/RADHAZ services and facilities contact:

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