

Calibration Laboratory of
Schmid & Partner
Engineering AG
Zeughausstrasse 43, 8004 Zurich, Switzerland

Client

Nokia China

CALIBRATION CERTIFICATE

Object(s)	D900V2 - SN:136
Calibration procedure(s)	QA CAL-05.v2 Calibration procedure for dipole validation kits
Calibration date:	October 3, 2003
Condition of the calibrated item	In Tolerance (according to the specific calibration document)

This calibration statement documents traceability of M&TE used in the calibration procedures and conformity of the procedures with the ISO/IEC 17025 international standard.

All calibrations have been conducted in the closed laboratory facility: environment temperature 22 +/- 2 degrees Celsius and humidity < 75%.

Calibration Equipment used (M&TE critical for calibration)

Model Type	ID #	Cal Date (Calibrated by, Certificate No.)	Scheduled Calibration
Power sensor HP 8481A	MY41092317	18-Oct-02 (Agilent, No. 20021018)	Oct-04
Power sensor HP 8481A	US37292783	30-Oct-02 (METAS, No. 252-0236)	Oct-03
Power meter EPM E442	GB37480704	30-Oct-02 (METAS, No. 252-0236)	Oct-03
RF generator R&S SML-03	100698	27-Mar-2002 (R&S, No. 20-92389)	In house check: Mar-05
Network Analyzer HP 8753E	US37390585	18-Oct-01 (Agilent, No. 24BR1033101)	In house check: Oct 03

Calibrated by:	Name	Function	Signature
	Judith Mueller	Technician	
Approved by:	Katja Pokovic	Laboratory Director	

Date issued: October 9, 2003

This calibration certificate is issued as an intermediate solution until the accreditation process (based on ISO/IEC 17025 International Standard) for Calibration Laboratory of Schmid & Partner Engineering AG is completed.

Test Laboratory: SPEAG, Zurich, Switzerland

DUT: Dipole 900 MHz; Type: D900V2; Serial: D900V2 - SN136

Communication System: CW-900; Frequency: 900 MHz; Duty Cycle: 1:1

Medium: HSL 900 MHz ($\sigma = 0.96 \text{ mho/m}$, $\epsilon_r = 42.26$, $\rho = 1000 \text{ kg/m}^3$)

Phantom section: Flat Section

Measurement Standard: DASY4 (High Precision Assessment)

DASY4 Configuration:

- Probe: ET3DV6 - SN1507; ConvF(6.6, 6.6, 6.6); Calibrated: 1/18/2003
- Sensor-Surface: 4mm (Mechanical Surface Detection)
- Electronics: DAE3 - SN411; Calibrated: 1/16/2003
- Phantom: SAM with CRP - TP1006; Type: SAM 4.0; Serial: TP1006
- Measurement SW: DASY4, V4.1 Build 47; Postprocessing SW: SEMCAD, V1.8 Build 60

Pin = 250 mW; d = 15 mm/Area Scan (81x81x1): Measurement grid: dx=15mm, dy=15mm

Reference Value = 56.2 V/m

Power Drift = -0.0 dB

Maximum value of SAR = 2.8 mW/g

Pin = 250 mW; d = 15 mm/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Peak SAR (extrapolated) = 3.88 W/kg

SAR(1 g) = 2.59 mW/g; SAR(10 g) = 1.67 mW/g

Reference Value = 56.2 V/m

Power Drift = -0.0 dB

Maximum value of SAR = 2.8 mW/g

