Schmid & Partner
Engineering AG

Staffelstrasse 8, 8045 Zurich, Switzerland, Telefon +41 1 280 08 60, Fax +41 1 280 08 64

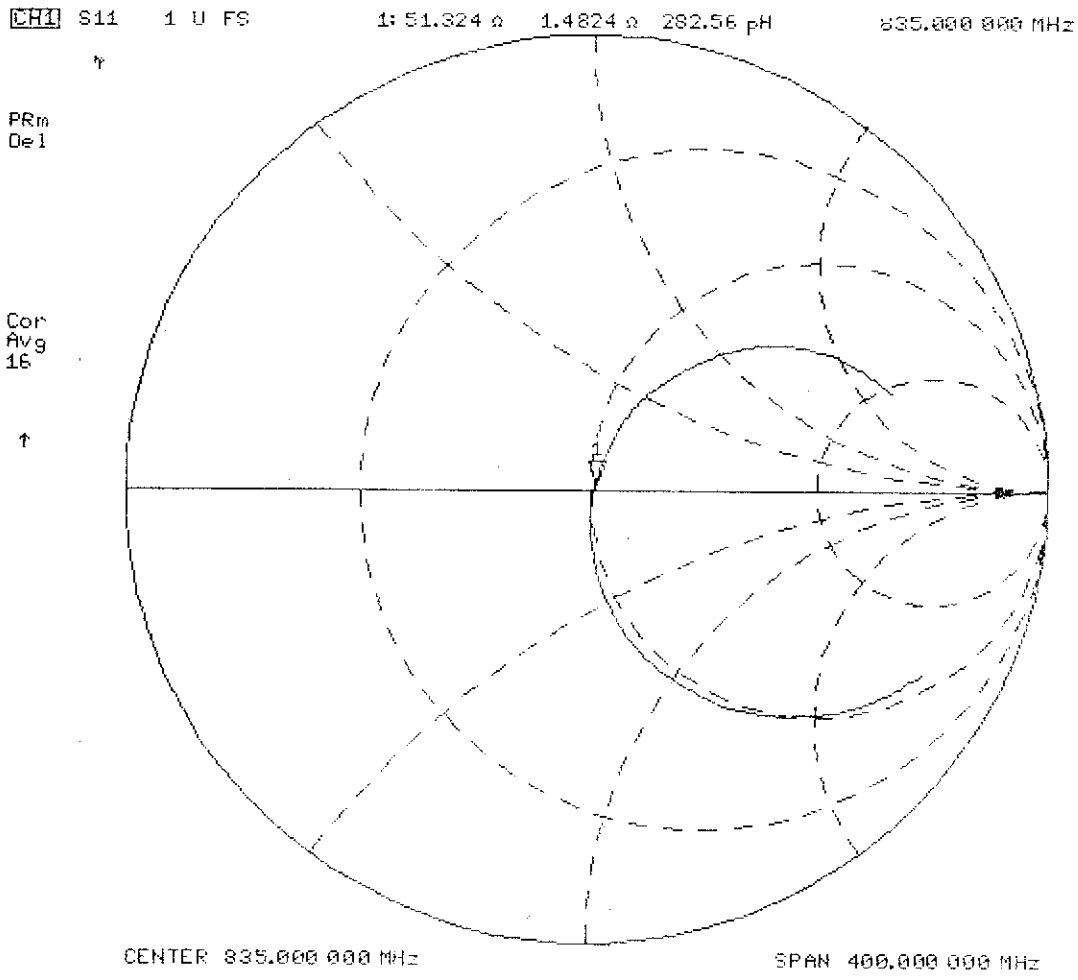
# DASY

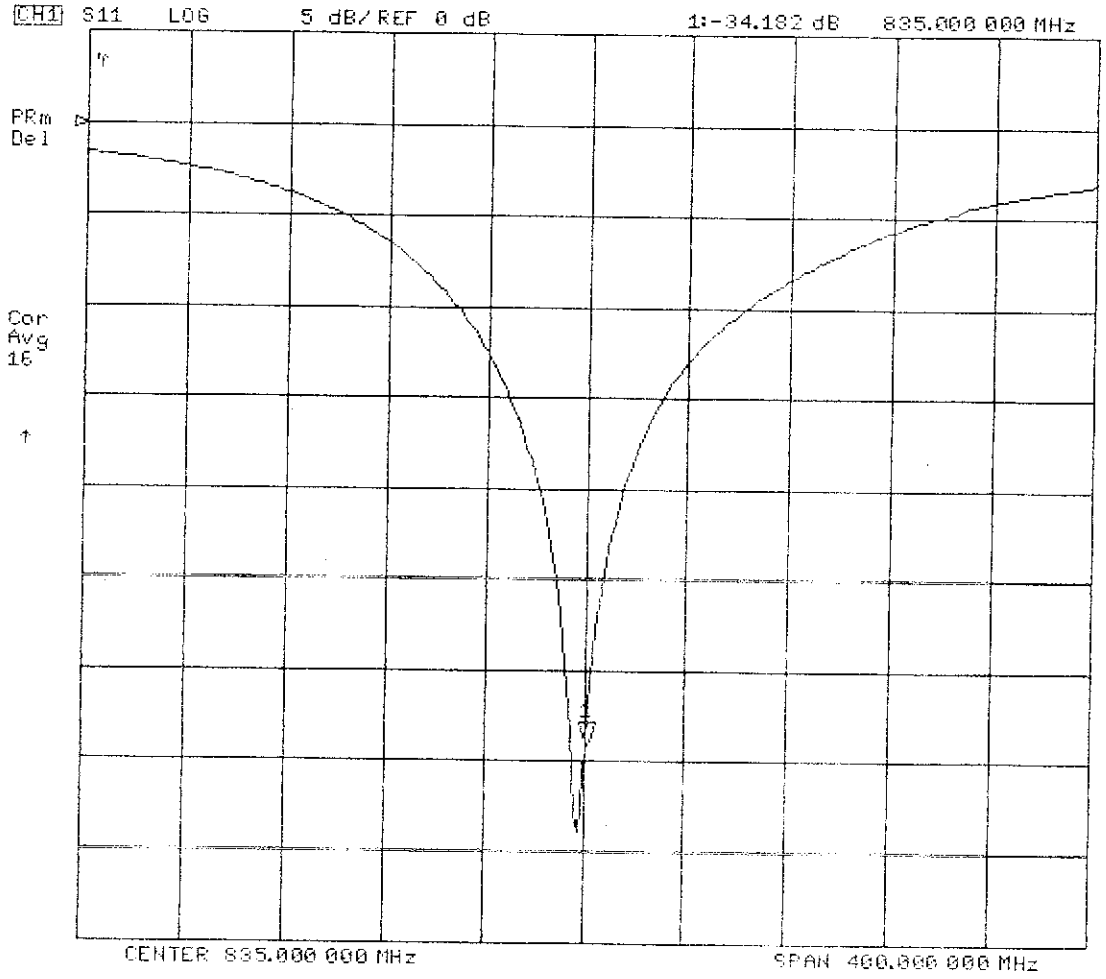
## Dipole Validation Kit

## Type: D835V2

## Serial: 406

| | |
|---|---|
| **Manufactured:** | **January 04, 2003** |
| **Last Calibration:** | **January 11, 2003** |
| **Recalibrated:** | **January 06, 2005** |


CH1 S11 1 U FS
1: 51.324 Ω 1.4824 Ω 282.56 pH
835.000 000 MHz
PRm
Del
Cor
Avg
16
CENTER 835.000 000 MHz
SPAN 400.000 000 MHz


CH1 S11 LOG 5 dB/ REF 0 dB
1:-34.182 dB 835.000 000 MHz
PRm
Del
Cor
Avg
16
CENTER 835.000 000 MHz
SPAN 400.000 000 MHz

## 3. Dipole Impedance and return loss

The impedance was measured at the SMA-connector with a network analyser and numerically transformed to the dipole feedpoint. The transformation parameters from the SMA-connector to the dipole feedpoint are:

| | | |
|---|---|---|
| Electrical delay: | **1.4238 ns** | (one direction) |
| Transmission factor: | **0.990** | (voltage transmission, one direction) |

The dipole was positioned at the flat phantom sections according to section 1 and the distance holder was in place during impedance measurements.

| | |
|---|---|
| Feedpoint impedance at 835 MHz: | Re{Z} = **51.3 Ω** |
| | Im {Z} = **1.5 Ω** |
| Return Loss at 835 MHz | **34.2 dB** |

## 4. Handling

The dipole is made of standard semirigid coaxial cable. The centre conductor of the feeding line is directly connected to the second arm of the dipole. The antenna is therefore short-circuited for DC-signals.

Do not apply excessive force to the dipole arms, because they might bend. If the dipole arms have to be bent back, take care to release stress to the soldered connections near the feedpoint; they might come off.

After prolonged use with 100W radiated power, only a slight warming of the dipole near the feedpoint can be measured.