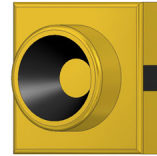


# Series 7860 • 7860/G

# MM 8130 • MM8430 • MS 156

- For high frequency measurements
- Compact design
- Also screwable type
- Inner conductor and outer tip are independently of each other and interchangeable



### Mechanical Data • inner conductor

Full travel	3.70 mm
Working travel	2.00 mm
Pre-loaded spring force	0.65/ 0.95 N
Spring force at working travel	1.30/ 2.00 N

### Mechanical Data • outer conductor

Full travel	5.00 mm
Working travel	4.00 mm
Pre-loaded spring force	1.50/ 3.00/ 4.00 N
Spring force at working travel	4.00/ 6.00/ 8.00 N

### Total spring force

Total spring force by working travel	5.30/ 6.00/ 7.30/ 8.00/ 9.30/ 10.00 N
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### Electrical Data

Impedance	50 Ohm
Frequency range	up to 6 GHz

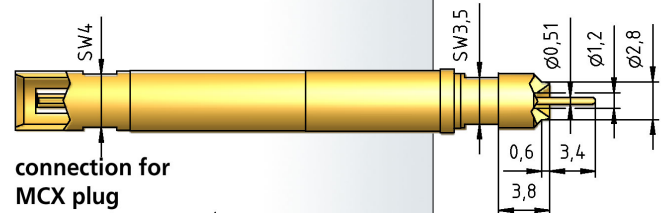
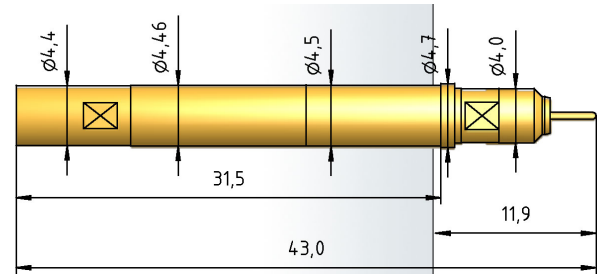
### Materials

Barrel	bronze, gold plated
Spring	steel, gold plated
Plunger	CuBe, gold plated
Receptacle	brass, gold plated

### Cable Data

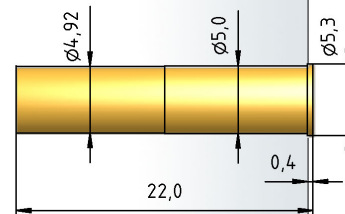
Type	Multiflex 86
Length	750 mm
Connection test probe	MCX
Connection testing technology	SMA

7860

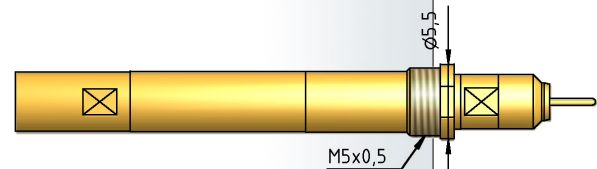


connection for MCX plug

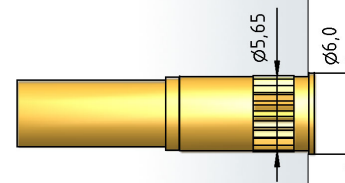
H 7860



7860/G



H 7860/GR



### How to order • inner conductor

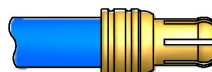
7860 - D - 1.3 N - Au - 0.5 C  
 1 2 3 4 5 6

1. series 2. inner conductor tip 3. spring force 4. tip plating 5. tip diameter 6. tip material

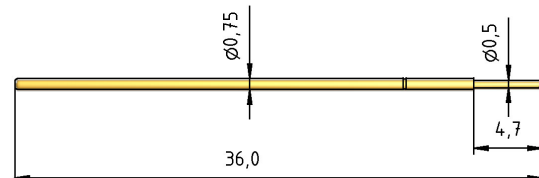
### How to order: • complete test probe

7860/G - Z2 D - 5.3 N - Au - 2.8/ 0.5 C  
 1 2 3 4 5 6 7 8 9

1. series 2. variant treaded design 3. outer conductor tip 4. inner conductor tip 5. spring force 6. tip plating 7. outer tip diameter 8. inner tip diameter 9. tip material



KK86MCX750SMA

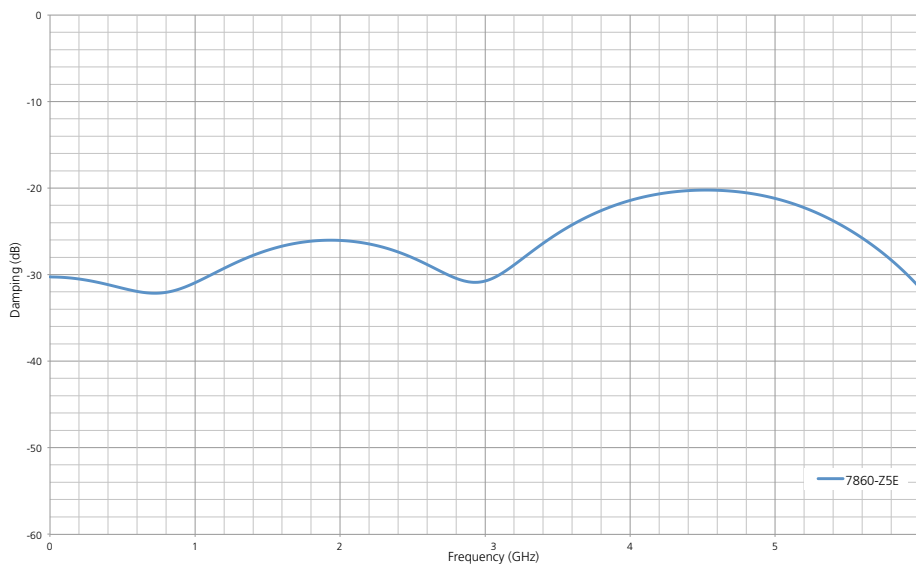


# TYPICAL DAMPING CHARACTERISTICS

The effect of a high-frequency test probe on a section of measurements is determined by the scattering parameters (S-parameters). In this case, the S11 and S21 parameters which define the so-called return loss and insertion loss are especially important. The return loss (S11) describes that proportion of the signal which is reflected by the test probe; the insertion loss (S21) describes that proportion of the signal which remains in force after passing through the test probe.

In order to avoid loading upstream modules unnecessarily, the aim is to attain as high a value as possible for the return loss. The value for the insertion loss should be close to zero so that the proportion of the usable signal is maximised. The typical damping characteristics – using the PTR HF-FK 7860-Z5E as an example – confirm that the requirements with regard to high return losses and low insertion losses were met.

## TYPICAL HIGH RETURN LOSSES – REFLEXION (S11)



## TYPICAL LOW INSERTION LOSSES – TRANSMISSION (S21)

