



The Dutch Accreditation Council RvA, by law appointed as the national accreditation body for The Netherlands, hereby declares that accreditation has been granted to:

## **Trescal B.V. Technical Operations Zoetermeer**

The organisation has demonstrated to be able to generate technical valid results in a competent way and work according to a management system.

This accreditation is based on an assessment against the requirements as laid down in EN ISO/IEC 17025:2005.

The accreditation covers the activities as specified in the authorized annex bearing the registration number.

The accreditation is valid provided that the organisation continues to meet the requirements.

The accreditation with registration number:

**K 052**

is granted on 12 September 1989

This declaration is valid until  
**30 November 2020**

The Chief Executive

Ir. J.C. van der Poel

Annex to declaration of accreditation (scope of accreditation)  
 Normative document: EN ISO/IEC 17025:2005  
 Registration number: **K 052**

of **Trescal B.V.**  
**Technical Operations**

This annex is valid from: **20-06-2018** to **30-11-2020**

Replaces annex dated: **30-05-2018**

HCS code	Measured quantity, Range	Frequency	CMC <sup>1</sup>	Remarks	Location
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OQ 1 0	Optical quantities				
OQ 1 5	Optical Power (Calibrationfactor)				ZTM
	-23 dBm to -55 dBm (5 μW to 3.16 nW)	850 nm	0.09 dB (≈2.0 %)	FC/PC multi-mode	

of **Trescal B.V.**  
**Technical Operations**

This annex is valid from: **20-06-2018** to **30-11-2020**

Replaces annex dated: **30-05-2018**

HCS code	Measured quantity, Range	Frequency	CMC <sup>1</sup>	Remarks	Location
	-5 dBm to -55 dBm (316 μW to 3.16 nW)	1,300 nm	0.13 dB (≈3.0 %)	FC/PC multi-mode	
	+3 dBm to -55 dBm (2 mW – 3.16 nW)	1,310 nm	0.09 dB (≈2.0 %)	FC/PC single mode	
	+3 dBm to -55 dBm (2 mW – 3.16 nW)	1,550 nm	0.09 dB (≈2.0 %)	FC/PC single mode	
	-5 dBm to -55 dBm (316 μW – 3.16 nW)	1,625 nm	0.10 dB (≈2.3 %)	FC/PC single mode	
	Incremental loss				
	0 dB to 30 dB	850 nm	0.060 dB	FC/PC multi-mode	
	0 dB to 45 dB	1,300 nm	0.060 dB	FC/PC multi-mode	
	0 dB to 55 dB	1,310 nm	0.050 dB	FC/PC single mode	
	0 dB to 55 dB	1,550 nm	0.050 dB	FC/PC single mode	
	0 dB to 50 dB	1,625 nm	0.050 dB	FC/PC single mode	

Electrical and optical calibrations are performed at nominal 23 °C.

The CMC in RF and Microwave measurements are applicable to instruments with a characteristic impedance of nominal 50 Ohm

- 1) Measurements are performed at a fixed set of measurement frequencies;
- 2) Calibration factor is applicable to measurements relative to 50 MHz;
- 3) CMC is calculated for a test object VSWR of 1.01 and the maximal VSWR for the uncertainty calculation is 1.35;
- 4) CMC is calculated for a test object with a typical VSWR of 1 to 1.27;

The measurements are carried out inside Trescal BV 's laboratory or in another location (on site).