PUREWAVE POLARIZERS

Measurement checklist

Free-standing terahertz wire-grid polarizers

Complete during measurement and retain with the corresponding test data.

1. Sample and measurement identification

Part number _____ **Sample / serial ID** _____

Operator _____ **Date** _____

2. Measurement setup

THz system / instrument _____ **Source / detector** _____

Frequency range _____ **Frequency resolution** _____

Beam diameter at polarizer _____ **Clear aperture** _____

Angle of incidence _____ **Wire orientation** _____

3. Before measurement

CHECK BEFORE STARTING

- ☐ Part number and wire direction recorded
- ☐ Grid inspected without touching the aperture
- ☐ Polarizer secured by the outer frame only
- ☐ Beam centred within the clear aperture
- ☐ Beam diameter checked to avoid clipping
- ☐ Angle of incidence recorded
- ☐ Reference and sample alignment unchanged
- ☐ Detector response is not saturated
- ☐ Detector noise floor established
- ☐ Purge or humidity conditions stabilised

4. Acquisition conditions

Reference method _____ **Scan sequence** _____

Angular step near minimum _____ **Averaging** _____

Purge gas / flow or relative humidity _____ **Stabilisation time** _____

Other acquisition settings _____

5. Verify the true minimum

- ☐ Scan passes through the nominal minimum
- ☐ Finer angular steps used close to minimum
- ☐ Response measured on both sides of minimum
- ☐ Minimum determined by fit or interpolation
- ☐ Minimum compared with detector noise floor

6. Key results

RECORD VALUES

Minimum angle _____

Maximum signal _____

Minimum signal _____

Extinction ratio _____

Repeatability / uncertainty _____

7. Observations and notes

_____

_____

_____

Data record / filename _____ **Reviewed by** _____

Protect the free-standing wire grid

Handle only by the outer frame. Never touch, wipe or apply pressure to the wire grid.