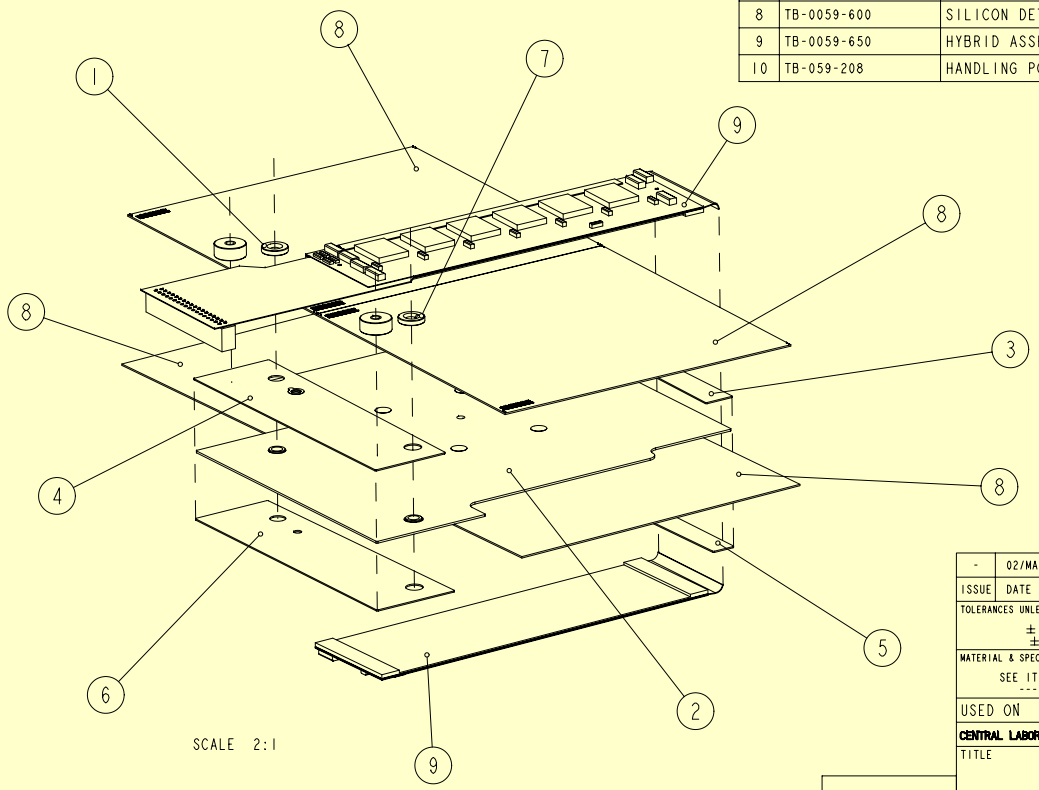
Modules - Barrel (suppl.)

A2 TB-0059-601-01_EXPL PROJECTION THIS DRAWING CONFORMS TO B.S. 308

ITEM	DRG No. / CAT No.	TITLE	QTY	REMARKS
1	TB-0059-206	DATUM WASHER	1	.
2	TB-0059-501	BASEBOARD-TPG	1	.
3	TB-0059-502	FACING-FARSIDE-UPPER (BeO)	1	.
4	TB-0059-503	FACING-COOLED SIDE-UPPER (BeO)	1	.
5	TB-0059-504	FACING-FAR SIDE-LOWER (BeO)	1	.
6	TB-0059-505	FACING-COOLED SIDE-LOWER	1	.
7	TB-0059-506	SLOTTED WASHER	1	.
8	TB-0059-600	SILICON DETECTOR	4	.
9	TB-0059-650	HYBRID ASSEMBLY	1	.
10	TB-059-208	HANDLING POINT	2	.



SCALE 2:1

-	02/MAR/01	------.	P FORD	PF	DG	WIP
ISSUE	DATE APPD	MOD. No.	DRN. BY	CHKD BY.	APPD BY.	STATUS

TOLERANCES UNLESS STATED ± mm ± °
FINISH: CLEAN, REMOVE ALL BURRS
ORIGINAL SCALE: 1:1 DO NOT SCALE
MATERIAL & SPEC.: SEE ITEMS LIST
SURFACE TEXTURE µM: √ UNLESS STATED
USED ON
© CLRC 2001
CENTRAL LABORATORY OF THE RESEARCH COUNCILS RUTHERFORD APPLETON LABORATORY, CHILTON, OXON OX110QX.
TITLE: ATLAS SCT BARREL MODULE ASSEMBLY
ATLAS_ID ADR025
A2 TB-0059-601-01_EXPL SHEET 2 OF 3

A2 TB-0059-601-01_EXPL

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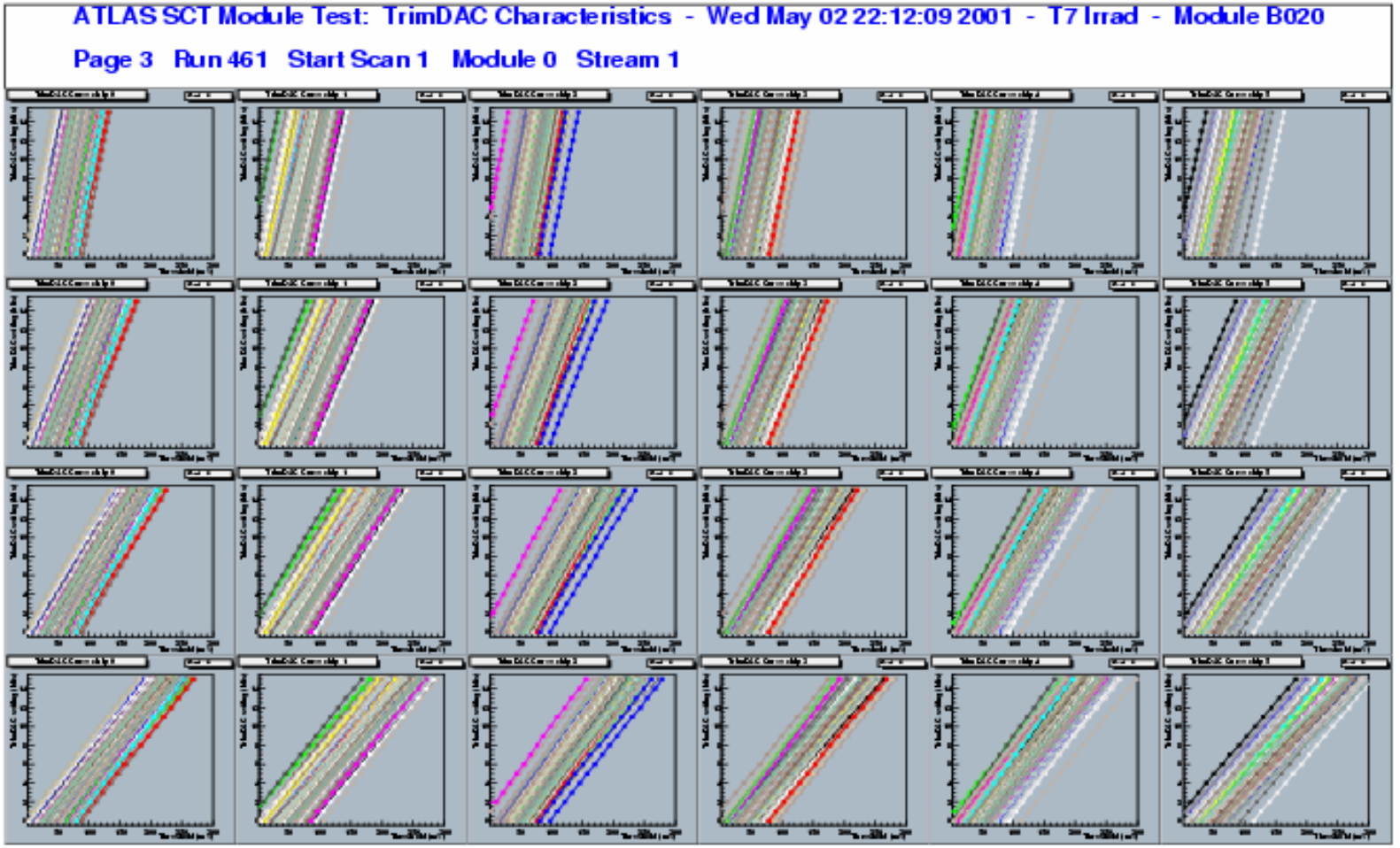

Figure 7: Trim DAC setting versus threshold for each of the 6 ASICs (horizontally) of the second readout side of module 20220170100020 after irradiation to $3x10^{14}$ pcm^{-2} for each of the 4 trim DAC ranges (vertically).

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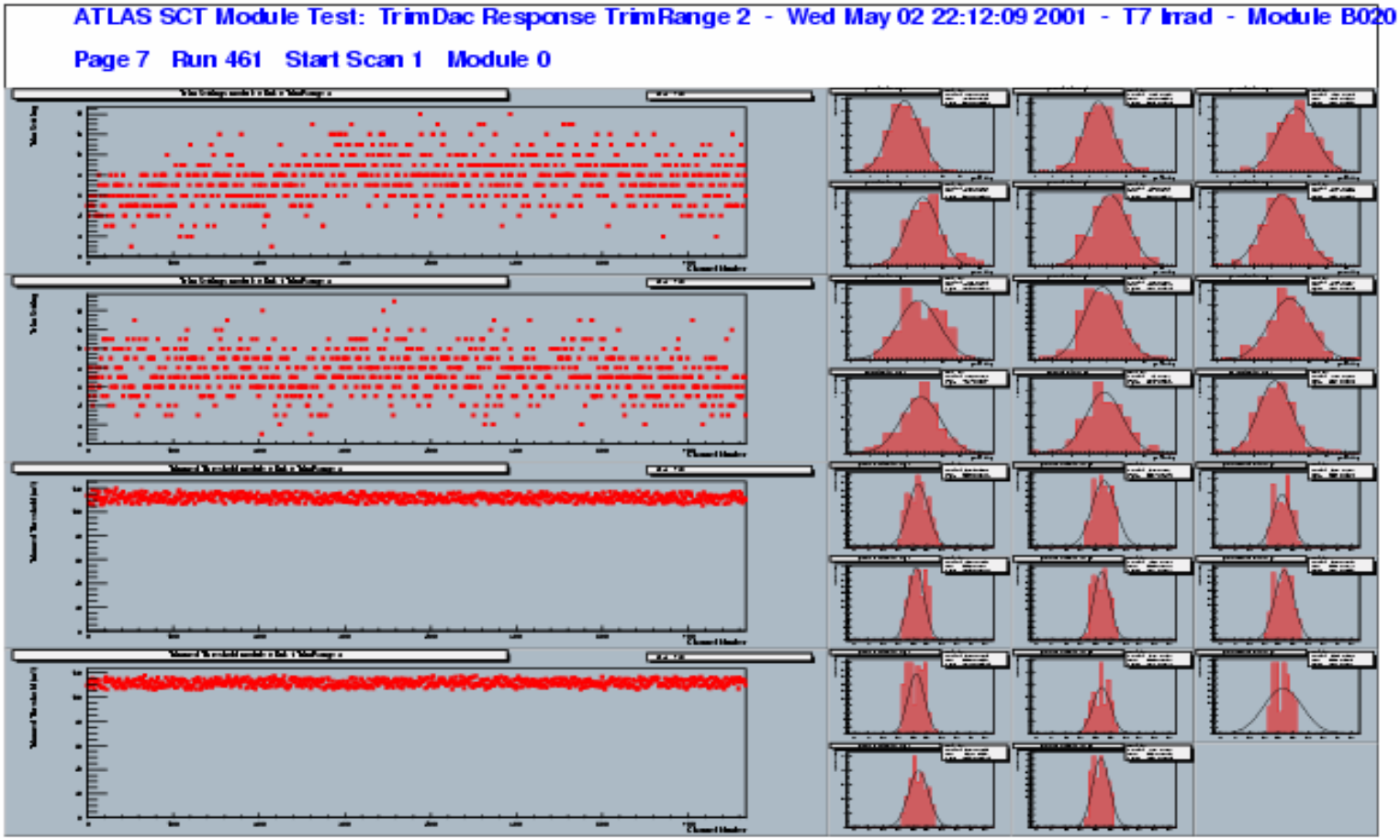

Figure 8: Trim DAC setting versus channel number (upper two rows) and trimmed threshold versus channel number (lower two rows) for module 20220170100020 after irradiation to $3x10^{14}$ pcm^{-2}. The right hand plots show the distribution of the variable for each ASIC on the second readout side of the module

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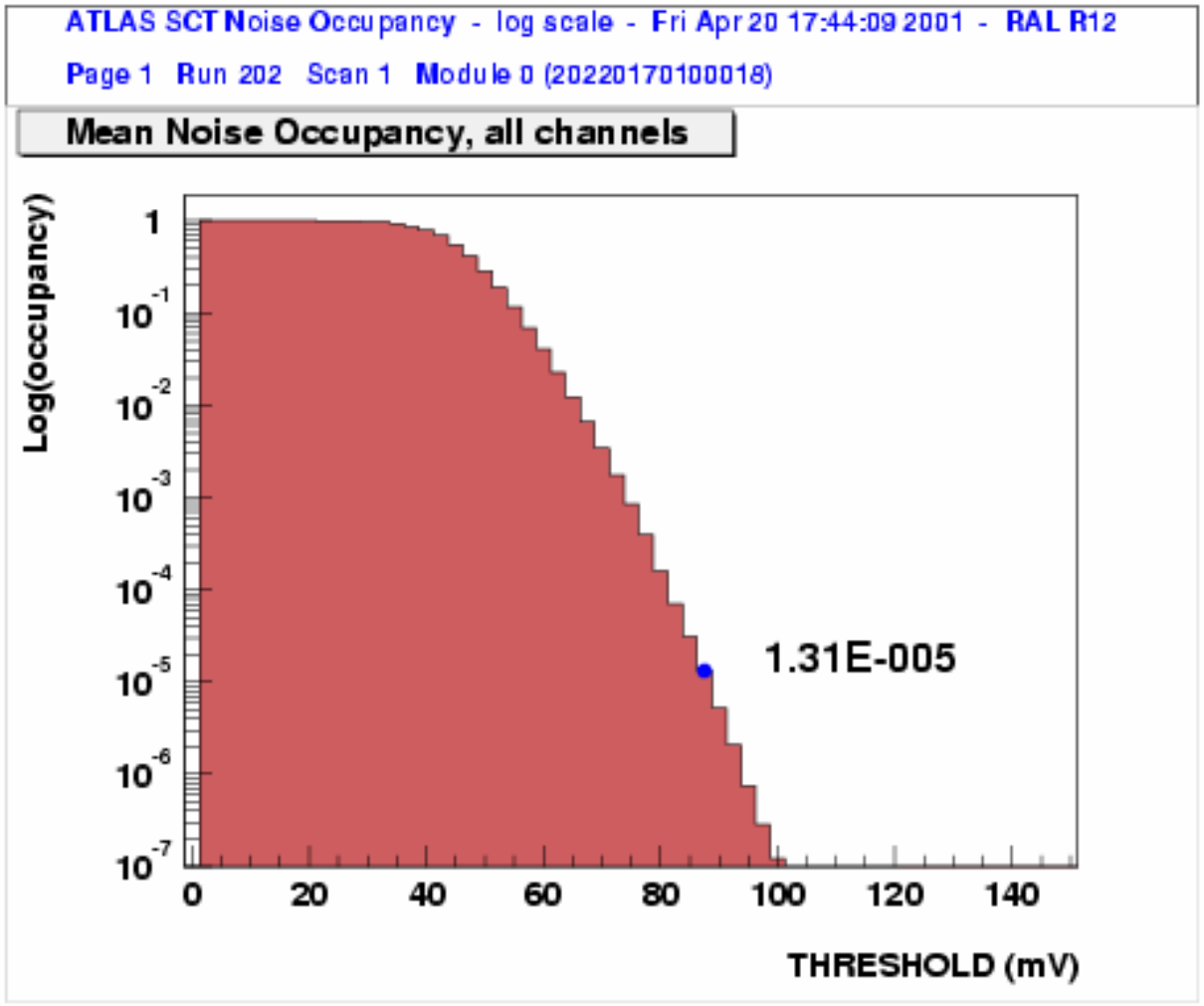

Figure 3: Mean noise occupancy of all channels of ABCD3T-A module 20220170100018, measured warm. The noise occupancy at 1fC threshold is 1.31×10^{-5}.

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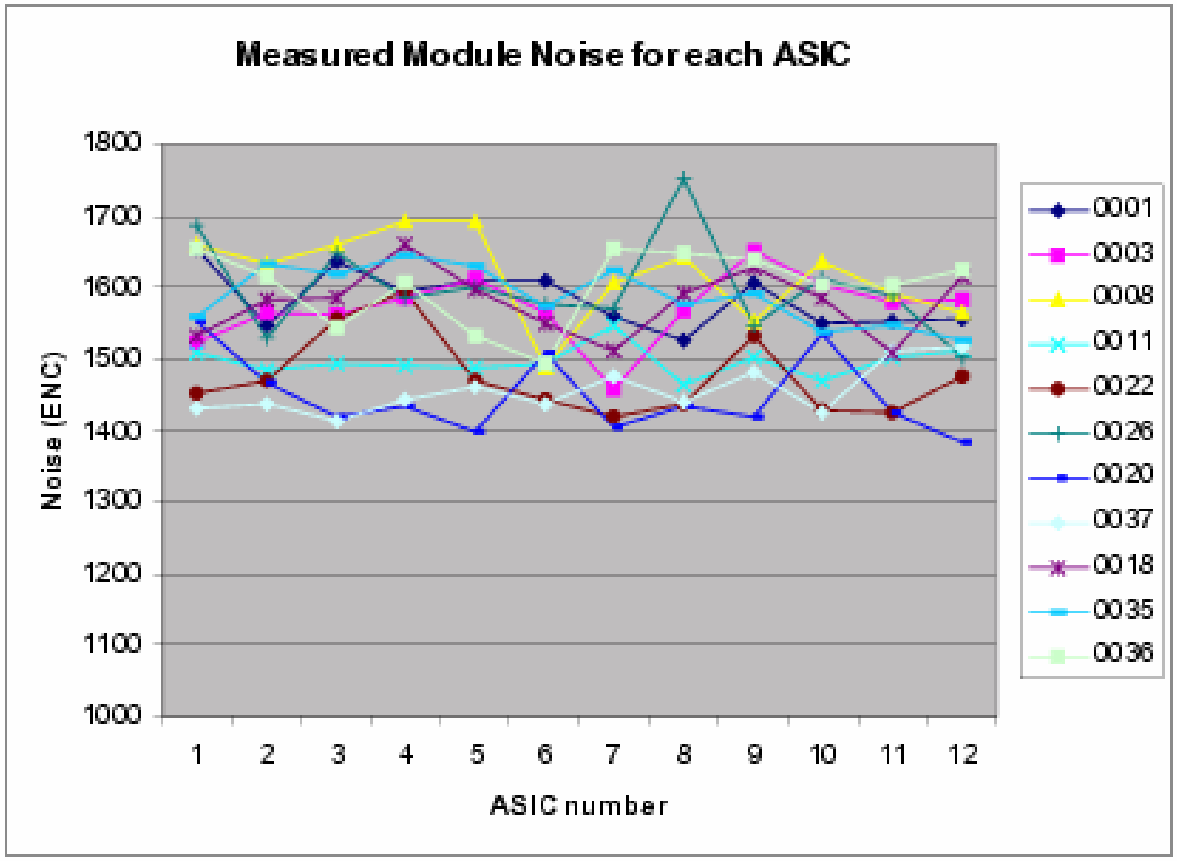

Figure 1: Measured noise (ENC) on each of the 12 ASICs of nine of the modules made with ABCD3T or ABCD3T-A ASICs. The temperature of the hybrid was about 27°C. Each curve is labelled with the four least significant digits of the corresponding module number.

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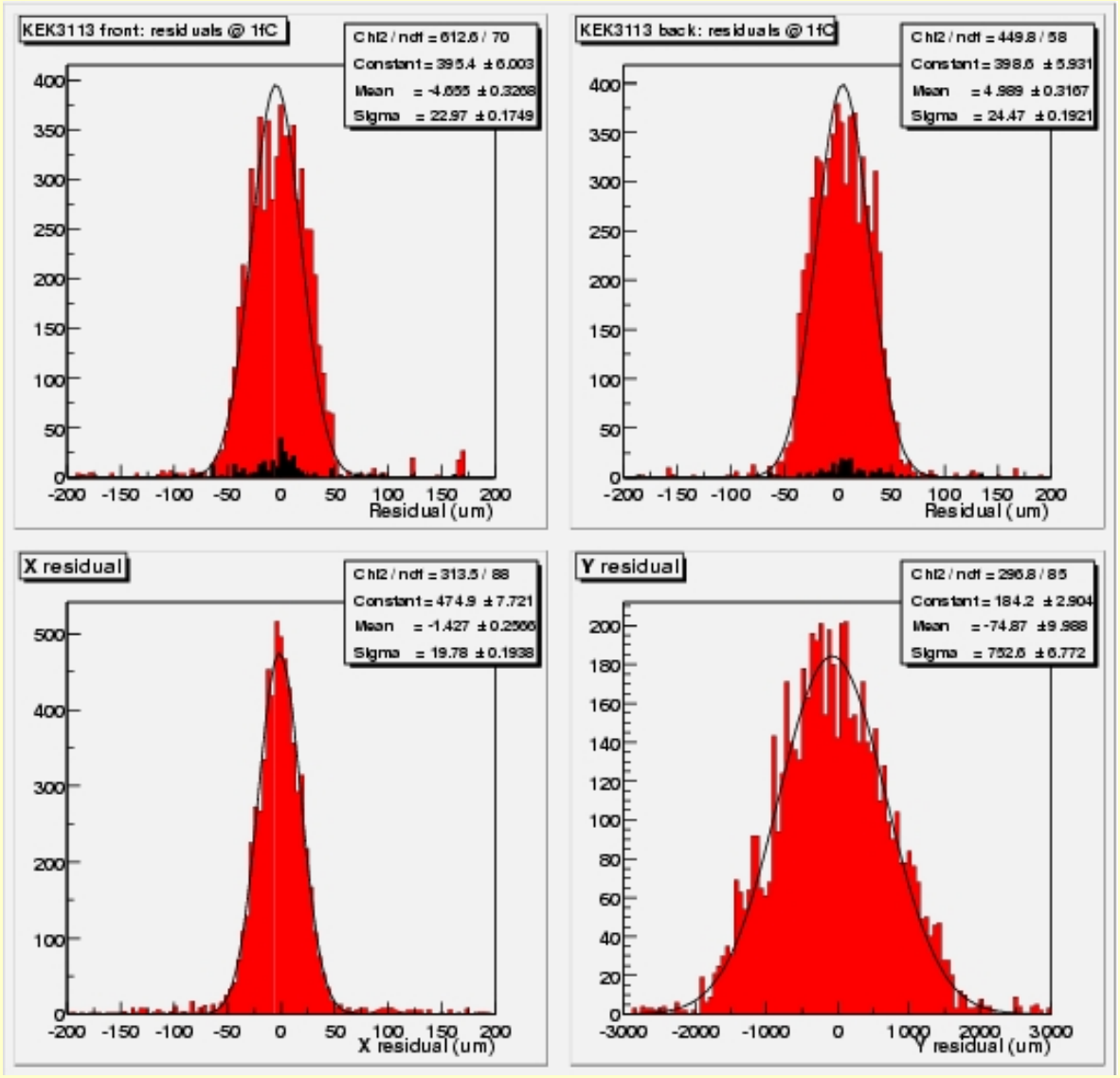

Modules - Barrel (suppl.)

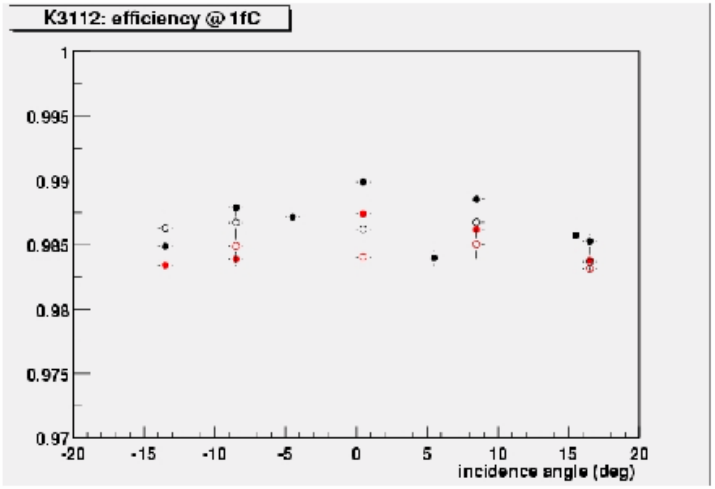

Figure 11: Measured efficiency of the unirradiated module K3112 at 1fC threshold as a function of the beam incident angle. The red symbols are with the magnetic filed of 1.5oT, the black with zero field. The open circles are with a bias voltage of 120V, the full circles with 200V bias.

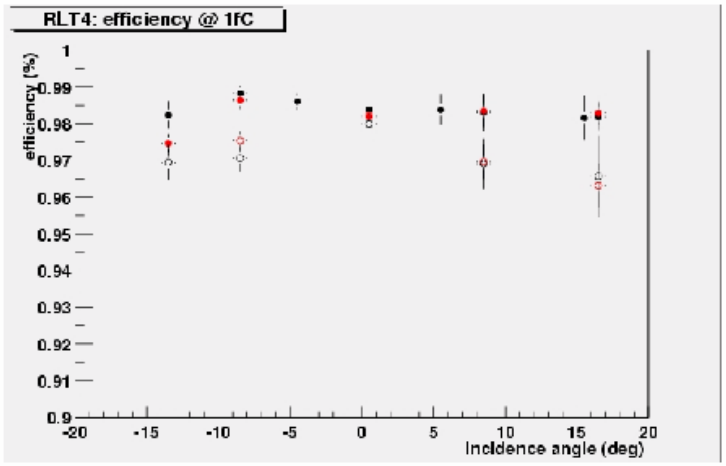

Figure 12: Measured efficiency of the fully irradiated module RLT4 at 1fC threshold as a function of the beam incident angle. The red symbols are with the magnetic filed of 1.5oT, the black with zero field. The open circles are with a bias voltage of 300V, the full circles with 450V bias.