

SLITS MEASUREMENT OF EMITTANCE ON TTF

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Emittance measurement on TESLA Test Facility is very important. A 1.3GHz photocathode RF gun injector delivers a lower emittance. Traditional method of measuring beam profile is not applicable, only the pepper pot and slits technique may be used. During TTF commissioning, the radio frequency photoinjector delivering multiple bunches requires a fast beam diagnostic system. This note describes beam image acquisition system, image processing and analysing, and emittance calculation