

# Photoinstrumentation

## *Addendum to the the Progress Committee Report*

The two Tables appearing below are presented here as an addendum to the Progress Report on Photoinstrumentation by Lincoln Endelman beginning on p. 328 of the May 1980 issue of the *SMPTE Journal*. They should be read as part of the report on Photoinstrumentation.

**Table I. Chinese multiple-framing, high-speed cameras.**

Model	General type	Speed range (pps)	Frame size	Capacity, frames or meters of film	Lenses available	Remarks
GS-240/35	Intermittent	200-240	Standard 35-mm frame	150 m	18 mm 40 mm 75 mm 1000 mm	Variable shutter, 60-65 line pairs/mm Static resolution: 30-35 line pairs/mm Dynamic resolution
LBS-1400	Rotating prism	200-1400	Standard 35-mm frame	300 m	40 mm 75 mm	Built in 1972; re-imaging system using 4-sided prism; disk shutter
LBS-2000	Rotating prism	200-2000	Standard 35-mm frame	150 m	40 mm 75 mm 100 mm 300 mm 1000 mm	Built in 1963; simple 4-sided prism compensator
ZFK-75	Rotating mirror	to 724,000	9 × 9 mm	60 frames		Non-continuous access; turbine driven at 85,000 rpm; 22 line pairs/mm static resolution; 19 line pairs/mm dynamic resolution
ZFK-250	Rotating mirror	to 2,500,000	16-mm circular	100 frames	1000 mm 2000 mm	Non-continuous access; turbine drive
ZFK-2000	Rotating mirror	to 20,000,000	5 × 7 mm	240 frames		Non-continuous access; turbine drive
ZFD-250	Rotating mirror	to 3,000,000		274 frames		Continuous access; triangular mirror, turbine driven at 17,934 rev/min
ZFD-20	Rotating mirror	to 200,000	9 × 10 mm	72 frames		Continuous access; two coaxial square mirrors; electric motor drive at 75,000 rev/min

**Table II. Electro-optical cameras.**

Model	General type	Remarks
GS-65	Kerr cell	Single 44-mm circular frame; $f/15$ relative aperture; $5 \times 10^{-8}$ s pulse duration
GS-66	Kerr cell	Three 40-mm circular frames; $f/15$ relative aperture; $10^{-6}$ s pulse duration; 18-26 line pairs/mm resolution
	Kerr cell	Four 12.5-mm circular frames; $2 \times 10^{-6}$ s pulse duration; $40-50 \times 10^{-6}$ s between 1st and 2nd exposures, $80-100 \times 10^{-6}$ s between 2nd and 3rd exposures and $120-150 \times 10^{-6}$ s between 3rd and 4th exposures
XG-3052	Image converter tube	Electrostatic focus; framing and streak photography
CSQ-301	Image converter tube	Magnetic deflection; framing and streak photography; four-stage image intensifier with 100,000:1 gain; 50-mm diameter, S2 photocathode; P-11 phosphor