



**Amperex Electronic Corporation**  
A NORTH AMERICAN PHILIPS COMPANY

MANUFACTURERS OF ELECTRON TUBES • SEMICONDUCTORS  
INTEGRATED CIRCUITS • COMPONENTS • ELECTRO-OPTICAL DEVICES

*For Immediate Release*

**FULL LINE OF LOW CAPACITANCE TV CAMERA PICK-UP TUBES  
ANNOUNCED BY AMPEREX.**

Slatersville, R.I.: The development of a new family of low capacitance DIODE GUN™ Plumbicon® television pick-up tubes for use in professional studio, ENG, and EFP cameras was announced by Amperex Electronic Corporation, a wholly owned subsidiary of North American Philips Corporation.

The Low Capacitance Diode Gun concept was first made public by Amperex in 1977 with the introduction of the "Frog Head" Plumbicon tube, type 45XQ. New technological developments now make possible the incorporation of this concept in 30mm, 1-inch and 2/3-inch Plumbicon tubes; the 30mm version is designated type 78XQ, the 1-inch tube—type S73XQLC and the 2/3-inch tube—type 74XQLC.

The low capacitance target used in these tubes results in a "quieter" picture. The signal-to-noise ratio of a camera is determined by the noise performance of the signal amplifier, which in turn is determined largely by its input stage. To minimize noise, one must maximize the input impedance with a high resistance and low tube capacitance.

The capacitance of the Plumbicon tube has always been low compared to the input of the preamplifier. New developments however have produced FET's preamplifiers with still lower capacitance (3 to 5 pf versus 15 pf.)

The development of the 1 to 2 pf capacitance target concept by Amperex provides for better overall system performance manifesting itself in one of two ways: an increased sensitivity of one f-stop or an improved system signal-to-noise ratio.

The Diode Gun construction in this new family of tubes provides for very high resolution, low lag and beam reserve for highlight handling. According to Amperex, the pricing of these tubes is expected to be 10% to 15% above the current line of Plumbicon tubes.

Further information may be obtained by contacting Jeff E. Brooke-Stewart, Amperex Electronic Corporation, Slatersville Division, Slatersville, Rhode Island 02876. Telephone: 401-762-3800; TWX: 710-382-6332; Telex: 92-7584.

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