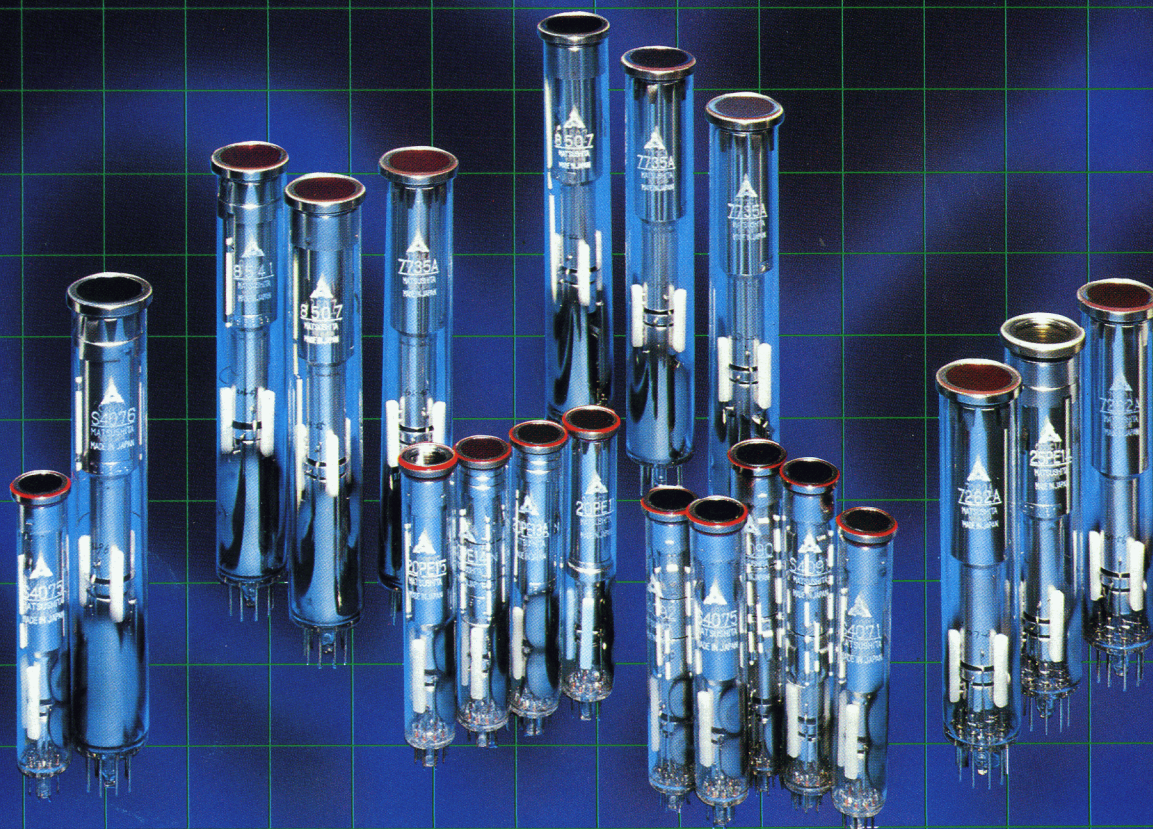


 **MATSUSHITA**

With Compliments  
of  
Commercial Department  
Electronic Tube Division  
Matsushita Electronics Corporation



# VIDICON TUBES

MATSUSHITA ELECTRONICS CORPORATION

# Pick-up Tube, the heart

- Performance of a TV camera is dependent on the quality of pick-up tube, where all the electrical signals originate.
- Pick out one of Matsushita tubes, you will surely be satisfied with their quality and performance as they are produced in quantities in internationally renowned production facilities.
- Matsushita offers you a wide product range.  
You can always find a tube that well meets your application requirements.

	Type No.	Application	Feature	Heater current (mA)	Tube diameter (inch)
Vidicon	20PE11	Home use TV camera	Compact, Light-weight	110	2/3
	20PE13A	Compact TV camera	Compact, High-resolution	95	2/3
	20PE14	Mini-type TV camera Handheld VTR camera	Compact, Light-weight	95	2/3
	S4097	Mini-type TV camera Handheld VTR camera	Compact, Light-weight	95	2/3
	7262A	Standard TV camera	Standard	95	1
	7735A	Standard TV camera	Standard	600	1
	8507	High-resolution TV camera "Tele-cine" camera	High-resolution	600	1
	8541	High-resolution TV camera "Tele-cine" camera	High-resolution	95	1
Color Vidicon	S4071	2-tube color camera (chroma ch. & luminance ch.)	Built-in optical black, High sensitivity	95	2/3
	S4072	2-tube color camera (chroma ch.)	Built-in yellow stripe filter	95	2/3
	S4090	2-tube color camera (chroma ch. & luminance ch.)	Built-in optical black	95	2/3
	S4091	2-tube color camera (chroma ch.)	Built-in optical black, yellow stripe filter	95	2/3
	S4070	Single-tube color camera	Built-in stripe filter (index, R.G.B.)	95	1
	S4077	Single-tube color camera	Built-in stripe filter	95	1
Newvicon®	S4075	Ultra-sensitivity compact TV camera	Ultra-sensitivity in visible spectrum No burning-in	95	2/3
	S4092	Ultra-sensitivity compact TV camera	Ultra-sensitivity in visible spectrum No burning-in	95	2/3
	S4076	Ultra-sensitivity TV camera X-ray TV camera	Ultra-sensitivity in visible spectrum, High resolution, No burning-in	95	1
Silicon Vidicon	20PE15	High infra-red sensitivity compact TV camera	Ultra-sensitivity, Low lag, No burning-in	95	2/3
	25PE14	High infra-red sensitivity TV camera	Ultra-sensitivity, Low lag, No burning-in	95	1

Note 1. M : Magnetic focusing  
E : Electrostatic focusing  
C : Combined focusing

Note 2. M : Magnetic deflection  
Note 3. 2856° K Tungsten  
Note 4. Lag at 50 m sec. after light-off

# of TV Camera

## The product line covers:

- 1) High quality/performance Vidicon for general application.
- 2) Color camera Vidicon with built-in color filter.
- 3) Silicon Vidicon having high infrared sensitivity and low lag characteristics
- 4) High sensitivity/resolution "Newvicon"<sup>®</sup>, a Matsushita's proprietary product featuring a high sensitivity 20 times as high as conventional Vidicon.

Max length (mm)	Focusing method (Note 1)	Deflection method (Note 2)	Mesh	Typical Characteristics					Replacement Guide
				Sensitivity		Gamma	Lag (Note 4) (%)	Limiting resolution at center (TV lines)	
				Face plate illumination (Note 3) (lx)	Signal current (nA)				
108	M	M	Integral	10	200	0.74	20	500	
108	M	M	Separate	10	220	0.74	20	700	8823, 8844
108	E	M	Separate	10	220	0.74	20	600	8929
108	E	M	Separate	10	220	0.74	20	600	20PE19, 20PE20
133	M	M	Integral	10	300	0.74	25	600	
162	M	M	Integral	10	300	0.74	25	600	
162	M	M	Separate	10	300	0.74	25	800	
162	M	M	Separate	10	300	0.74	25	800	
108	M	M	Separate	10	250	0.74	15	700	
108	E	M	Separate	10	150	0.74	18	—	
119	E	M	Separate	10	240	0.74	18	650	
119	E	M	Separate	10	160	0.74	18	—	
162	C	M	Separate	10	200	0.74	30	—	
162	C	M	Separate	10	280	0.74	25	—	
108	M	M	Separate	1	260	1	10	700	
108	E	M	Separate	1	260	1	12	600	
162	M	M	Separate	1	460	1	20	800	
108	M	M	Separate	1	300	1	5	400	
133	M	M	Separate	1	550	1	10	550	

# Application Examples

(⊙ : Most suitable)

Application	NEWVICON <sup>®</sup>	VIDICON	SILICON VIDICON	PLUMBICON <sup>®</sup>
Color TV Camera Broadcasting Sub-broadcasting Industrial & CCTV "Tele-cine" camera	○	⊙ ⊙		⊙ ⊙ ⊙ ⊙
Medical TV Camera X-ray camera Endoscope camera	⊙ ○	○ ○		⊙ ○
Educational TV Camera Educational CCTV System camera for education & training Teaching aids	○ ○ ⊙	⊙ ⊙ ⊙		○ ○
Surveillance Camera Infra-red noctovision LLL (low light level) TV Factory surveillance: hazardous operation, etc. Outdoor surveillance: station, car parking, etc. Indoor surveillance: supermarket, etc.	○ ⊙ ⊙ ⊙ ⊙	○ ○ ⊙	⊙ ○ ○ ○	
Home Entertainment Video instructor for sports, etc. "Video Receptionist"	⊙ ⊙	⊙ ⊙		
Others Microscope camera Rear-view camera (bus, fork lift, etc.)	⊙ ⊙	○ ⊙	○	

(N.B. Plumbicon is marketed only in Japan)

## Typical Application of Matsushita Pick-up Tubes

- Sophisticated color camera ..... Plumbicon<sup>®</sup>
- High-sensitivity surveillance camera ..... Newvicon<sup>®</sup>
- Infra-red sensitive surveillance camera ..... Silicon Vidicon
- General surveillance, inexpensive camera ..... Vidicon
- Scan-converter, video editing ..... Silicon Storage Tube

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