

EMI SUPPRESSION FILTER

muRata

Signal Line Noise Filter NfV510 Series

Compact and High Performance. Effective for High-speed Digital Signal Lines.

NfV510 series signal line EMIFIL an efficient noise suppression filter for high-speed digital signal lines where frequencies of signal elements and noise elements are very close.

Murata has combined its superior inductor and capacitor technologies with a unique circuit configuration to realize outstanding noise suppression effect.

NfV510 series EMIFILs meet the noise suppression regulations of FCC, CISPR for digital video signal line.

FEATURES

1. Steep attenuation characteristics make this filter most suitable as suppressors for unwanted radiation in signal lines without attenuating signal elements.
2. Larger attenuation is obtained through the use of Murata's unique high performance inductors.
3. 4 types classified by cut-off frequencies from 10MHz to 100MHz allow you to obtain optimum noise suppression.

APPLICATIONS

Noise suppression for RGB signal lines, digital image equipment, computer terminals, digital TVs, etc.

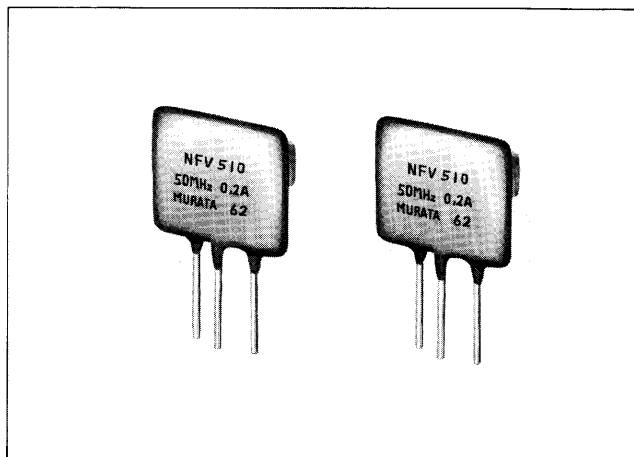
PART NUMBERING

(*Please specify the part number when ordering)

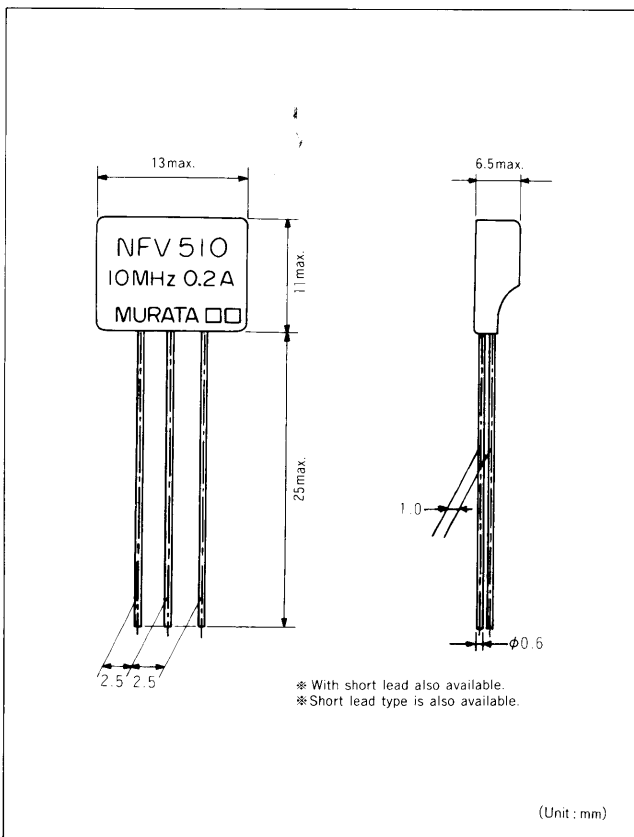
NfV510 - **655** **T** **2A** **106**

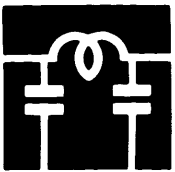
① ② ③ ④ ⑤

- ① Signal Line EMIFIL
- ② Lead Configuration
- ③ Circuit Construction
- ④ Rated Voltage
- ⑤ Cut-off Frequencies



DIMENSIONS





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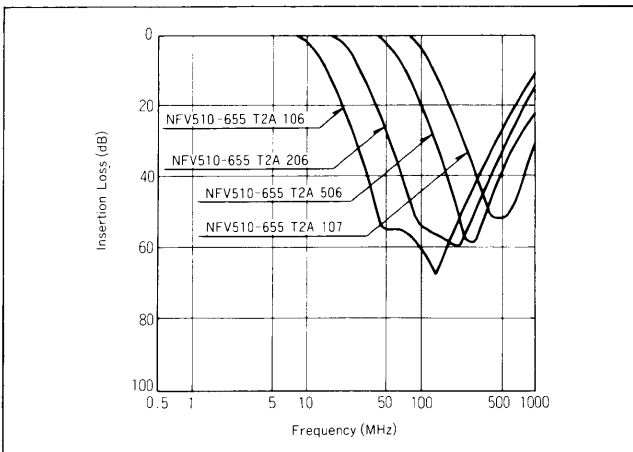
Signal Line Noise Filter NFV510 Series.

■ RATINGS

Part Number	Characteristics	Cut-off Frequency	Attenuation (dB)					Rated Voltage (V)	Rated Current (mA)	
			10MHz	20MHz	50MHz	100MHz	200MHz			500MHz
NFV510-655 T2A 106		10MHz	※	15	40	45	40	15	100	200
NFV510-655 T2A 206		20MHz	—	※	25	45	50	20	100	200
NFV510-655 T2A 506		50MHz	—	—	※	15	40	20	100	200
NFV510-655 T2A 107		100MHz	—	—	—	※	15	35	100	200

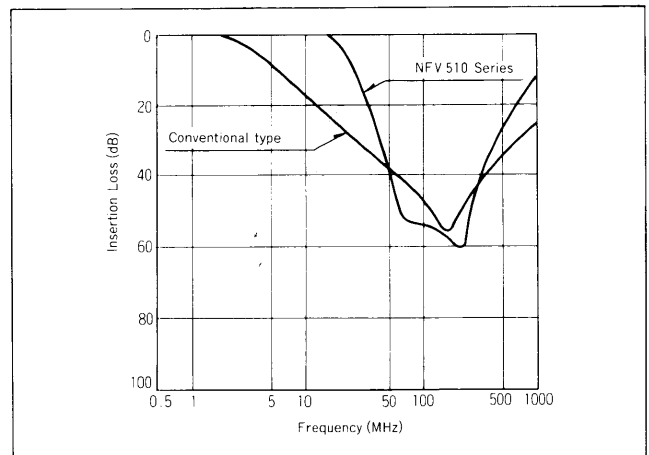
※ 6dB max.

■ INSERTION LOSS CHARACTERISTICS

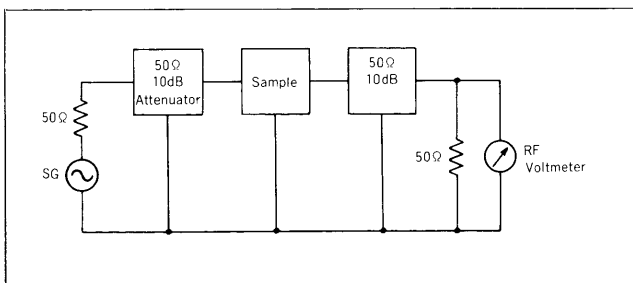


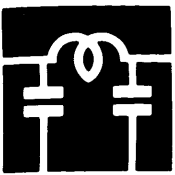
※NFV510 series can realize noise suppression without reducing effective elements of the signal, because it has steep attenuation characteristics.

■ COMPARISON WITH CONVENTIONAL THREE TERMINAL CAPACITORS



■ INSERTION LOSS MEASURING CIRCUIT





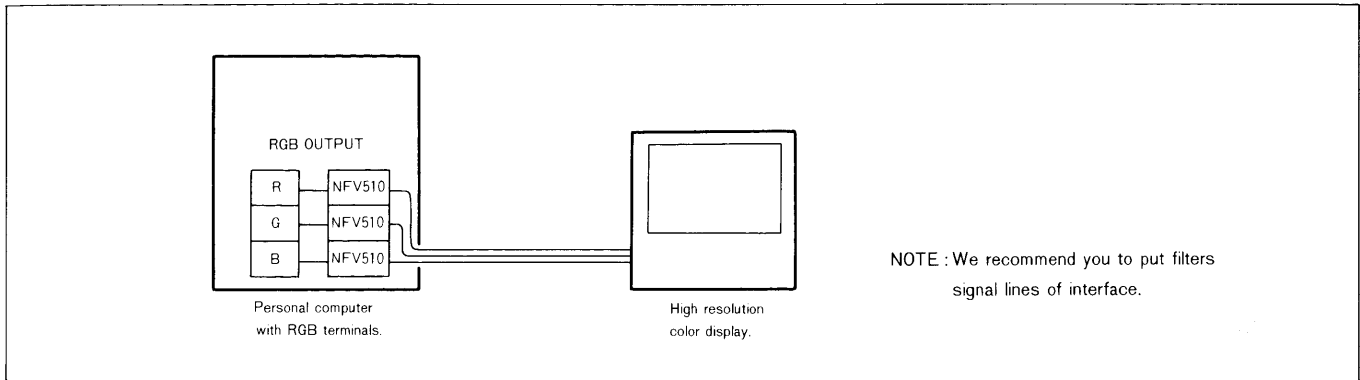
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Signal Line Noise Filter NFV510 Series

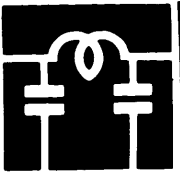
■ APPLICATION

- Noise Suppression for RGB Signal Lines.



■ NOTES

- (1) As the characteristics change according to variations of line impedance values, please be sure to select the NFV510 series with the most appropriate cut-off frequency.
- (2) Length of earth terminal has a great effect upon filtering characteristics. Please make the earth line as short as possible.



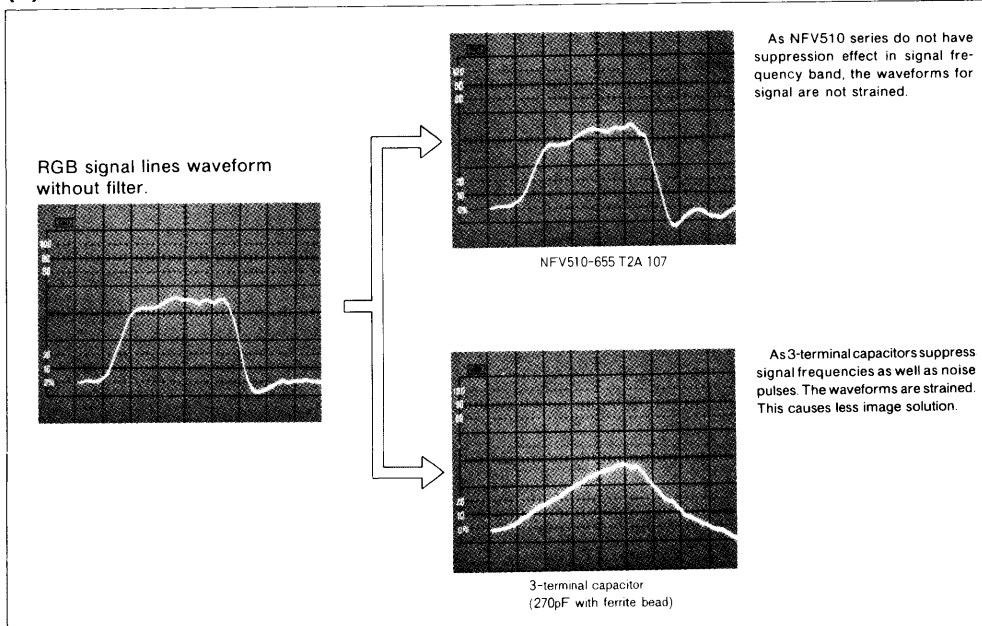
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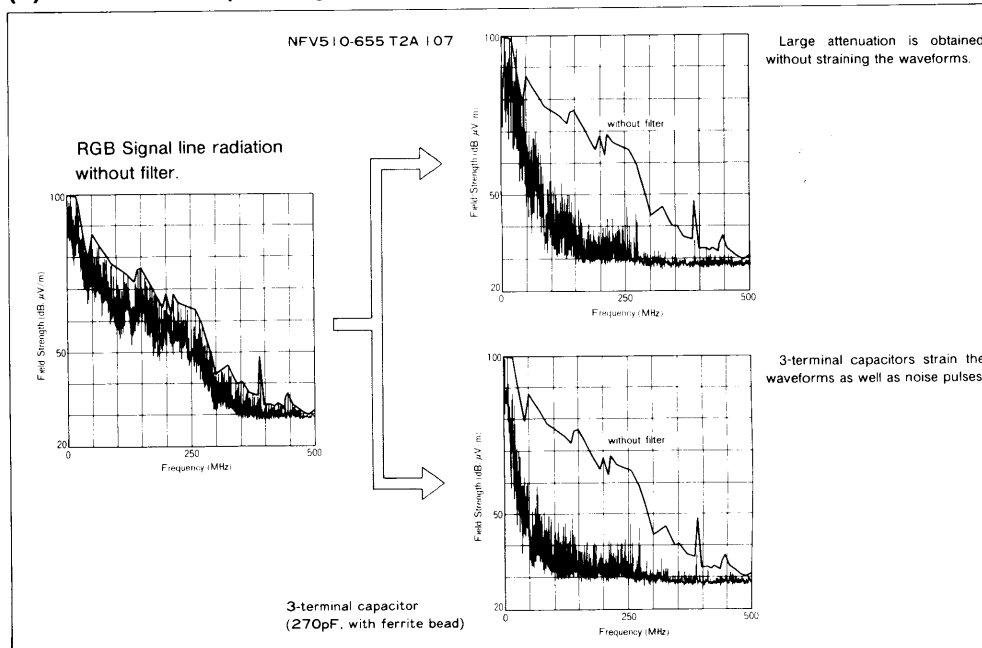
Signal Line Noise Filter NFV510 Series

● Comparative Data

(1) Strain of signal wave, in using filters (1V/div, 0.01 μs/div)



(2) EMI Emission (from signal line cable) (10dB/div, 50MHz/div)



※Please confirm the type and rated value upon ordering as they are subject to change for improvement without notice. Please contact us for further information.



MURATA MFG. CO., LTD.

HEADQUARTERS

Nagaokakyo-shi, Kyoto 617, Japan Phone:075-951-9111 Telex:MURATA J 64270

INTERNATIONAL DIVISION

612-1 Hakusan-cho, Midori-ku, Yokohama-shi, Kanagawa 226, JAPAN Phone:045-931-7111 Telex:J 47925 MURATAT

(U.S.A./CANADA)

MURATA ERIE NORTH AMERICA, INC.

2200 Lake Park Drive Smyrna, GA 30080, U.S.A.

Phone:404-436-1300 Telex:542329

MURATA ERIE NORTH AMERICA, LTD. Canadian Operations

5 Fraser Avenue Trenton, Ontario, Canada K8V 5S1

Phone:613-392-2581 Telex:662279

(MEXICO)

MURATA ERIE TEXAS, INC.

27 Concord Street, El Paso, TX:79906 U.S.A. Phone:915-778-0217

MURATA ELECTRONICA MEXICANA S.A. de C.V

Santos Dumont #6620 Parque Industrial Panamericano CD.

Juarez, Chihuahua 32000 Mexico Phone:161-190809

(BRAZIL)

MURATA ELETRÔNICA DO BRASIL LTDA. (MEB)

MURATA AMAZÔNIA INDÚSTRIA E COMÉRCIO LTDA. (MAB)

AL. SANTOS, 1.893-6 andar-Conjunto 62, CEP 01419 São Paulo, SP, Brazil

Phone:011-289-7751, 011-287-4232 Telex:38-1130156 MREB BR

(WEST GERMANY)

MURATA ELEKTRONIK GMBH & CO. HANDELS KG.

Holbeinstrasse 21-23,8500 Nürnberg 70, West Germany Phone:0911-66870 Telex:623763

(FRANCE)

MURATA ELECTRONIQUE S.A.

Parc Technologique 18, 22, Avenue Edouard Herriot 92356

Le Plessis Robinson Cedex France Phone:1-40941400 Telex:631530

(ITALY)

MURATA ELETTRONICA S.p.A.

Via Sancarolo, 1 20040 Caponago, Milano Phone:02-95743000 Telex:330385

(ENGLAND)

MURATA ELECTRONICS (UK) Limited

Oak House, Ancells Road, Ancells Business Park, Fleet, Aldershot Hampshire, GU13 8UN U.K.

Phone:0252-811666 Telex:858971 MEU G

(SINGAPORE)

MURATA ELECTRONICS SINGAPORE (PTE.) LTD.

41 Jalan Pemimpin, Off Upper Thomson Road, Singapore 2057

Phone:2584233, Telex:21127

(TAIWAN)

TAIWAN MURATA ELECTRONICS CO., LTD.

225 Chung-Ching Road Taichung, Taiwan Phone:042-91-4151 Telex:27571 MURATA

MURATA ERIE N.A., INC. Taiwan Branch.

Room 1403, Chia Hsin Building 96, Chung-Shan N. Rd., Sec. 2, Taipei 10449, Taiwan

Phone:02-562-4218 Telex:27571 MURATA

(THAILAND)

MURATA ELECTRONICS, LTD. (MTL)

Nothem Region Industrial Estate 63 Moo 4, Tambol Ban-Kiang Amphoe Muang, Lamphun 51000 Kingdom of Thailand

Phone:053-581166

(HONG KONG)

MURATA COMPANY, Limited

Units 1314-22, 13F Park-In Commercial Centre 56 Dundas Street Mongkok, Kowloon Hong Kong

Phone:3-7822618 Telex:56208 HKMRT HX

(KOREA)

MURATA MFG. CO., LTD. Seoul Branch.

Room 906, Lee Ma Bldg., 146-1, Susong Dong, Chongro-Ku, Seoul, Korea

Phone:730-7605/730-7321 Telex:25858