

OLYMPUS

SI

Tel: 781-419-3900
www.olympusndt.com

TRANSDUCER DESCRIPTION

PART NO.: V153
SERIAL NO.: 953364
DESIGNATION: CONTACT

FREQUENCY: 1.00 MHz
ELEMENT SIZE: .5 IN. DIA.

TEST INSTRUMENTATION

FLAW DETECTOR: Epoch 600; S/N: 130524608
TEST PROGRAM: TP103-4
CABLE: RG-174/U LENGTH: 4FT.

TEST CONDITIONS

PULSER SETTING: Energy: 100 VOLT, Damping: 200 OHM, Shape: Spike
RECEIVER SETTING: Gain: 27dB, Filter: DC-10.0 MHz
TARGET: 5 IN. COPPER
JOB CODE: TP200

MEASUREMENTS PER ASTM E1065

WAVEFORM DURATION:
-14DB LEVEL -- 1.187 US
-20DB LEVEL -- 1.959 US
-40DB LEVEL -- 6.719 US

SPECTRUM MEASURANDS:
CENTER FREQ. ---- 1.03 MHz
PEAK FREQUENCY -- 1.18 MHz
-6DB BANDWIDTH -- 91.80 %

COMMENTS:

WARNING! DO NOT EXCEED 300 VOLT EXCITATION PULSE.

Unit tested using uniform pressure system.
Sensitivity demonstrated on this certification
can only be duplicated under similar conditions.

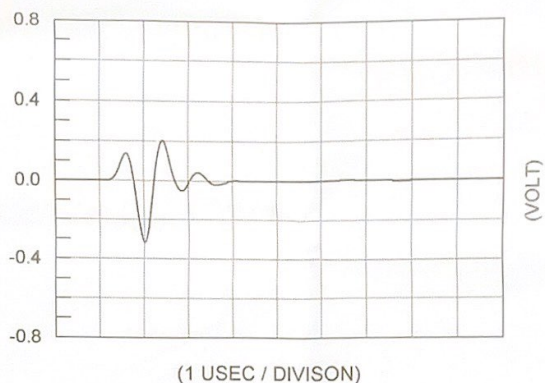
** ACCEPTED

TECHNICIAN (99)

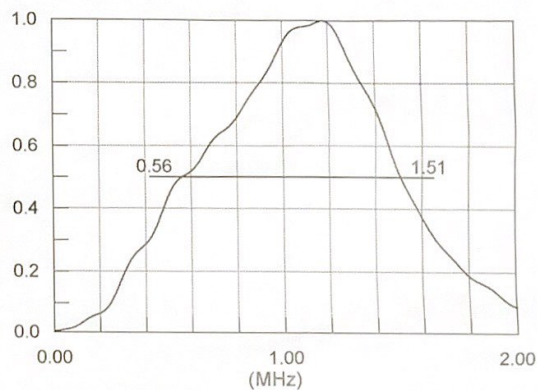
DATE: 09-22-2014

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SIGNAL WAVEFORM



FREQUENCY SPECTRUM



PANAMETRICS-NDT™

TP1XX-WLM Rev. A

OLYMPUS

S2

Tel: 781-419-3900
www.olympusndt.com

TRANSDUCER DESCRIPTION

PART NO.: V153
SERIAL NO: 953363
DESIGNATION: CONTACT

FREQUENCY: 1.00 MHz
ELEMENT SIZE: .5 IN. DIA.

TEST INSTRUMENTATION

FLAW DETECTOR: Epoch 600, S/N: 130524608
TEST PROGRAM: TP103-4
CABLE: RG-174/U LENGTH: 4FT.

TEST CONDITIONS

PULSER SETTING: Energy: 100 VOLT; Damping: 200 OHM; Shape: Spike
RECEIVER SETTING: Gain: 27dB; Filter: DC-10.0 MHz
TARGET: 5 IN. COPPER
JOB CODE: TP200

MEASUREMENTS PER ASTM E1065

WAVEFORM DURATION:
-14DB LEVEL -- 1.414 US
-20DB LEVEL -- 1.913 US
-40DB LEVEL -- 7.082 US

SPECTRUM MEASURANDS:
CENTER FREQ -- 1.13 MHz
PEAK FREQUENCY -- 1.15 MHz
-6DB BANDWIDTH -- 78.28 %

COMMENTS:

WARNING! DO NOT EXCEED 300 VOLT EXCITATION PULSE.

Unit tested using uniform pressure system.
Sensitivity demonstrated on this certification
can only be duplicated under similar conditions.

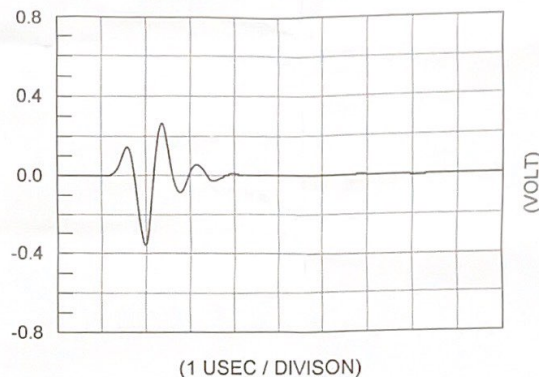
** ACCEPTED

TECHNICIAN (99)

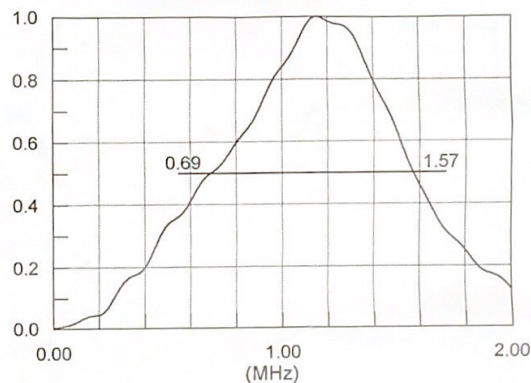
DATE: 09-22-2014

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SIGNAL WAVEFORM



FREQUENCY SPECTRUM



PANAMETRICS-NDT™



TP1XX-WLM Rev. A

OLYMPUS

Pul

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TRANSDUCER DESCRIPTION

PART NO.: V1548
SERIAL NO.: 970416
DESIGNATION: CONTACT

FREQUENCY: 0.10 MHz
ELEMENT SIZE: 1 IN. DIA.

TEST INSTRUMENTATION

PULSER/RECEIVER: PANAMETRICS 5052 CD00826
DIGITAL OSCILLOSCOPE: LeCroy LT262 / SN: LT26200324
TEST PROGRAM: TP103-3
CABLE: RG-58/U 4 FT.

TEST CONDITIONS

PULSER SETTING: ENERGY: 1; DAMPING: 500 ohm
RECEIVER SETTING: ATTN: 36dB; GAIN: 40dB
TARGET: 3.7 IN. COPPER
JOB CODE: TP210

MEASUREMENTS PER ASTM E1065

WAVEFORM DURATION:
-14DB LEVEL - 12.480 US
-20DB LEVEL - 28.640 US
-40DB LEVEL - 49.760 US

SPECTRUM MEASURANDS:
CENTER FREQ. - 0.10 MHz
PEAK FREQUENCY - 0.10 MHz
-6DB BANDWIDTH - 75.74 %

COMMENTS:

This unit was tested using a system that applies uniform pressure to the transducer to insure product integrity, therefore the sensitivity demonstrated on this certification can only be duplicated under similar conditions.
SPECTRUM BASED ON GATED PORTION OF SIGNAL AS MARKED

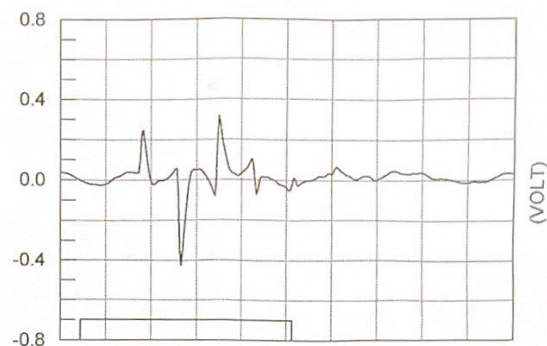
** ACCEPTED

TECHNICIAN (12)

DATE: 01-14-2015

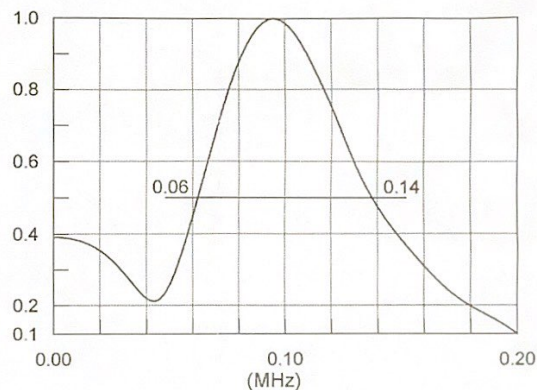
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SIGNAL WAVEFORM



(4.992 USEC / DIVISION)

FREQUENCY SPECTRUM



PANAMETRICS-NDT™



TP1XX-WLM Rev. A

OLYMPUS

PU2

Tel: 781-419-3900
www.olympus-ims.com

TRANSDUCER DESCRIPTION

PART NO: V1548
SERIAL NO: 1110595
DESIGNATION: CONTACT

FREQUENCY: 0.10 MHz
ELEMENT SIZE: 1 IN. DIA.

TEST INSTRUMENTATION

PULSER/RECEIVER: PANAMETRICS 5052 CD00546
DIGITAL OSCILLOSCOPE: LeCroy LT262 / SN: LT2620032
TEST PROGRAM: TP103-3
CABLE: RG-58/U 4 FT.

TEST CONDITIONS

PULSER SETTING: Energy: 1; Damping: 500 Ohm
RECEIVER SETTING: Gain: 40 dB; Attn: 36 dB
TARGET: 3.7 IN. COPPER
JOB CODE: TP210

MEASUREMENTS PER ASTM E1065

WAVEFORM DURATION:
-14DB LEVEL -- 12 960 US
-20DB LEVEL -- 23 200 US
-40DB LEVEL -- 45 280 US

SPECTRUM MEASURANDS:
CENTER FREQ. ---- 0.10 MHz
PEAK FREQUENCY -- 0.10 MHz
-6DB BANDWIDTH -- 83.05 %

COMMENTS:

This unit was tested using a system that applies uniform pressure to the transducer to insure product integrity, therefore the sensitivity demonstrated on this certification can only be duplicated under similar conditions.
SPECTRUM BASED ON GATED PORTION OF SIGNAL AS MARKED

** ACCEPTED

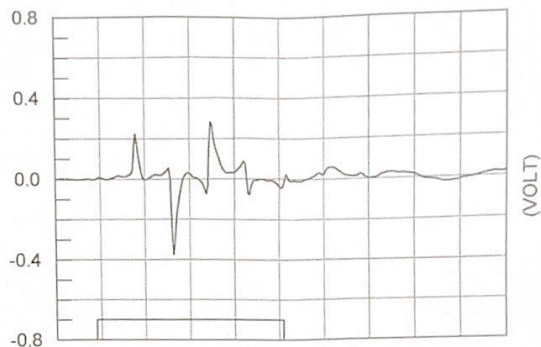
TECHNICIAN (12)



DATE: 08-03-2017

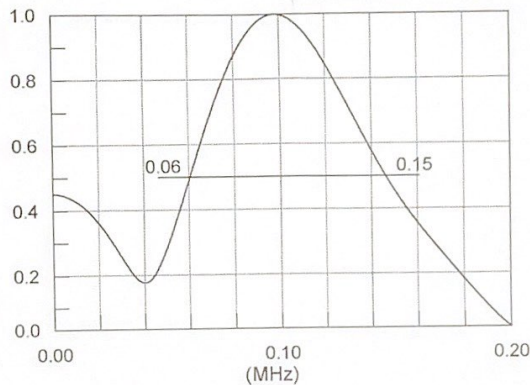
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SIGNAL WAVEFORM



(4.992 USEC / DIVISION)

FREQUENCY SPECTRUM



TP103 Rev A

OLYMPUS

P1



Tel: 781-419-3900
www.olympus-ims.com

TRANSDUCER DESCRIPTION

PART NO.: V103
SERIAL NO: 1189382
DESIGNATION: CONTACT

FREQUENCY: 1.00 MHz
ELEMENT SIZE: .5 in. DIA.

TEST INSTRUMENTATION

FLAW DETECTOR: Epoch 600, S/N: 130527005
TEST PROGRAM: TP103-4
CABLE: RG 174/U LENGTH: 4FT

TEST CONDITIONS

PULSER SETTING: Energy: 100 Volt; Damping: 200 Ohm; Shape: Spike
RECEIVER SETTING: Gain: 43 dB; Filter: DC - 10.0 MHz
TARGET: 3.7 IN. COPPER
JOB CODE: TP200

MEASUREMENTS PER ASTM E1065

WAVEFORM DURATION:
-14DB LEVEL -- 1.030 US
-20DB LEVEL -- 1.611 US
-40DB LEVEL -- 6.609 US

SPECTRUM MEASURANDS:
CENTER FREQ. --- 1.12 MHz
PEAK FREQUENCY -- 1.23 MHz
-6DB BANDWIDTH -- 84.19 %

COMMENTS:

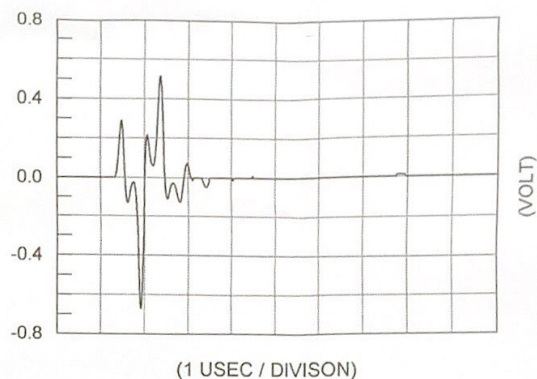
** ACCEPTED

TECHNICIAN (12)

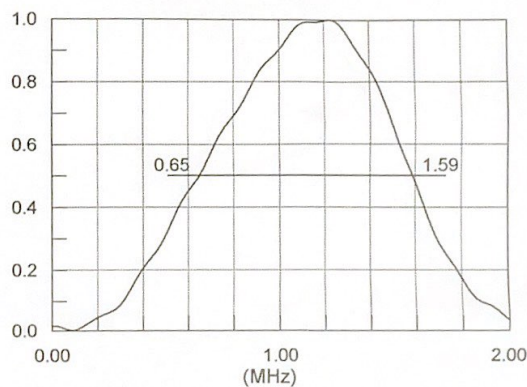
DATE: 12-18-2018

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SIGNAL WAVEFORM



FREQUENCY SPECTRUM



TP103 Rev. A

OLYMPUS

P2

Tel: 781-419-3900
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TRANSDUCER DESCRIPTION

PART NO.: V103
SERIAL NO.: 1185582
DESIGNATION: CONTACT

FREQUENCY: 1.00 MHz
ELEMENT SIZE: .5 in. DIA.

TEST INSTRUMENTATION

FLAW DETECTOR: Epoch 600, S/N: 130527005
TEST PROGRAM: TP103-4
CABLE: RG 174/U LENGTH: 4FT

TEST CONDITIONS

PULSER SETTING: Energy: 100 Volt; Damping: 200 Ohm; Shape: Spike
RECEIVER SETTING: Gain: 43 dB; Filter: DC - 10.0 MHz
TARGET: 3.7 IN. COPPER
JOB CODE: TP200

MEASUREMENTS PER ASTM E1065

WAVEFORM DURATION:
-14DB LEVEL - 1.076 US
-20DB LEVEL - 1.667 US
-40DB LEVEL - 6.644 US

SPECTRUM MEASURANDS:
CENTER FREQ. - 1.08 MHz
PEAK FREQUENCY - 1.09 MHz
-6DB BANDWIDTH - 83.19 %

COMMENTS:

** ACCEPTED

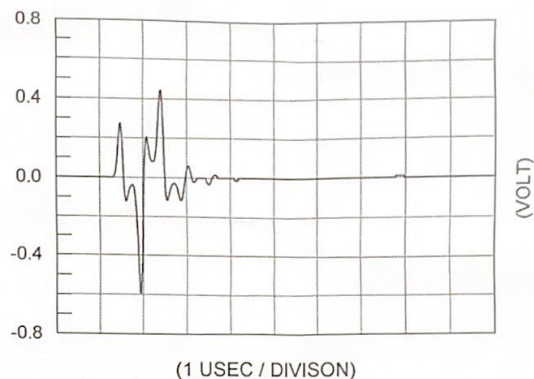
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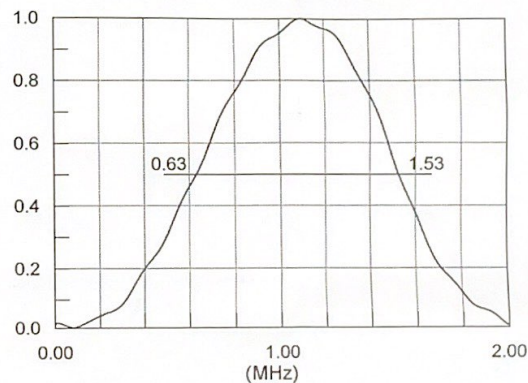
DATE: 11-29-2018

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FREQUENCY SPECTRUM



TP103 Rev. A

OLYMPUS

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P3

TRANSDUCER DESCRIPTION

PART NO.: V103
SERIAL NO: 1189385
DESIGNATION: CONTACT

FREQUENCY: 1.00 MHz
ELEMENT SIZE: .5 in. DIA.

TEST INSTRUMENTATION

FLAW DETECTOR: Epoch 600; S/N: 130527005
TEST PROGRAM: TP103-4
CABLE: RG 174/U LENGTH: 4FT

TEST CONDITIONS

PULSER SETTING: Energy: 100 Volt; Damping: 200 Ohm; Shape: Spike
RECEIVER SETTING: Gain: 43 dB; Filter: DC - 10.0 MHz
TARGET: 3.7 IN. COPPER
JOB CODE: TP200

MEASUREMENTS PER ASTM E1065

WAVEFORM DURATION:
-14DB LEVEL - 1.038 US
-20DB LEVEL - 1.485 US
-40DB LEVEL - 6.582 US

SPECTRUM MEASURANDS:
CENTER FREQ. - 1.07 MHz
PEAK FREQUENCY - 1.09 MHz
-6DB BANDWIDTH - 95.57 %

COMMENTS:

** ACCEPTED

TECHNICIAN (12)

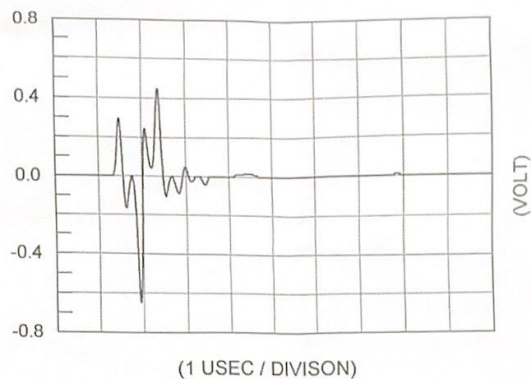


DATE: 12-18-2018

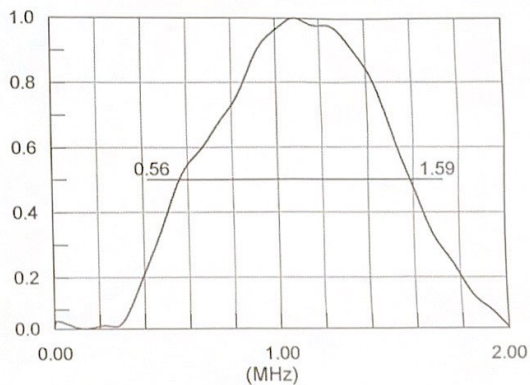
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FREQUENCY SPECTRUM



TP103 Rev. A

OLYMPUS

P5

Tel: 781-419-3900
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TRANSDUCER DESCRIPTION

PART NO: V103
SERIAL NO: 1189384
DESIGNATION: CONTACT

FREQUENCY: 1.00 MHz
ELEMENT SIZE: .5 in. DIA.

TEST INSTRUMENTATION

FLAW DETECTOR: Epoch 500; S/N: 130527005
TEST PROGRAM: TP103-4
CABLE: RG 174/U LENGTH: 4FT

TEST CONDITIONS

PULSER SETTING: Energy: 100 Volt; Damping: 200 Ohm; Shape: Spike
RECEIVER SETTING: Gain: 43 dB; Filter: DC - 10.0 MHz
TARGET: 3.7 IN. COPPER
JOB CODE: TP200

MEASUREMENTS PER ASTM E1065

WAVEFORM DURATION:
-14DB LEVEL -- 1.048 US
-20DB LEVEL -- 1.647 US
-40DB LEVEL -- 6.632 US

SPECTRUM MEASURANDS:
CENTER FREQ. --- 1.09 MHz
PEAK FREQUENCY -- 1.10 MHz
-6DB BANDWIDTH -- 86.33 %

COMMENTS:

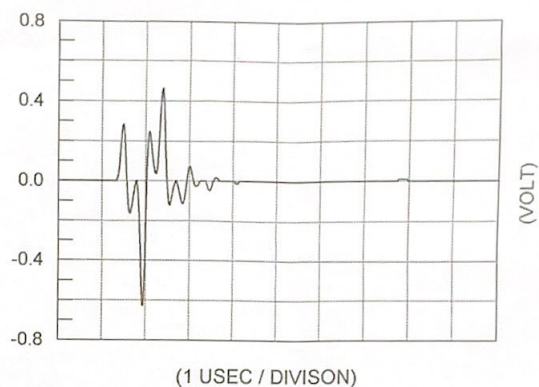
** ACCEPTED

TECHNICIAN (12)

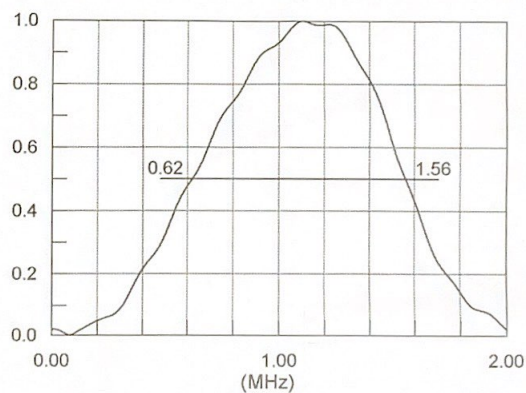
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SIGNAL WAVEFORM



FREQUENCY SPECTRUM



TP103 Rev. A

OLYMPUS

P6

Tel: 781-419-3900
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TRANSDUCER DESCRIPTION

PART NO.: V103
SERIAL NO.: 1185581
DESIGNATION: CONTACT

FREQUENCY: 1.00 MHz
ELEMENT SIZE: .5 in. DIA.

TEST INSTRUMENTATION

FLAW DETECTOR: Epoch 600; S/N: 130527005
TEST PROGRAM: TP103-4
CABLE: RG 174/U LENGTH: 4FT

TEST CONDITIONS

PULSER SETTING: Energy: 100 Volt; Damping: 200 Ohm; Shape: Spike
RECEIVER SETTING: Gain: 43 dB; Filter: DC - 10.0 MHz
TARGET: 3.7 IN. COPPER
JOB CODE: TP200

MEASUREMENTS PER ASTM E1065

WAVEFORM DURATION:
-14DB LEVEL - 1.482 US
-20DB LEVEL - 1.665 US
-40DB LEVEL - 6.562 US

SPECTRUM MEASURANDS:
CENTER FREQ. - 1.06 MHz
PEAK FREQUENCY - 1.09 MHz
-6DB BANDWIDTH - 84.12 %

COMMENTS:

** ACCEPTED

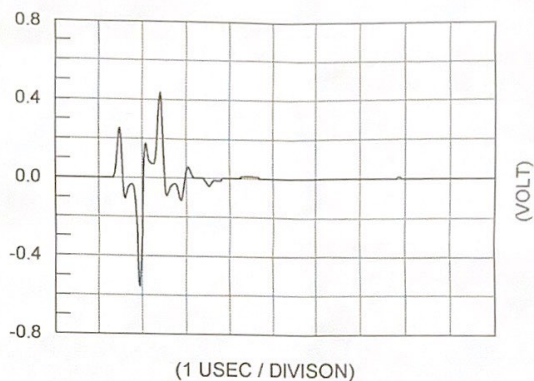
TECHNICIAN (12)



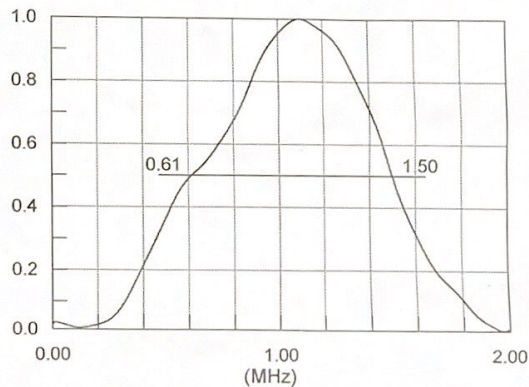
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