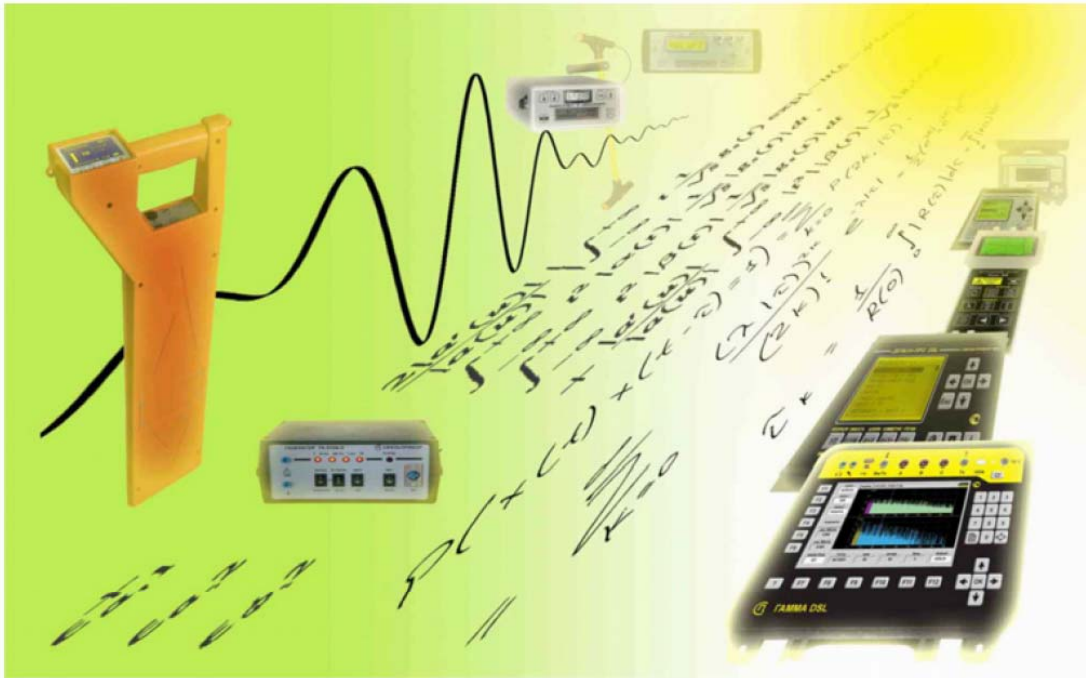


SVPRIBOR



FIBER LINES **OTDR, OPTIC TESTER**
COOPER LINES **BRIDGE/RFL, TDR, CABLEMETER**
xDSL, Ethernet, E1 **ANALYZER @ FAULT LOCATOR**
CABLES AND PIPES **TRACE / FAULT LOCATOR**

FOR 20 YEARS WE PRODUCE THE INSTRUMENTS FOR YOU!

OTDR @ OPTIC TESTER



ADSL/ADSL2+, xDSL, Eternet





BRIDGE/RFL + TDR



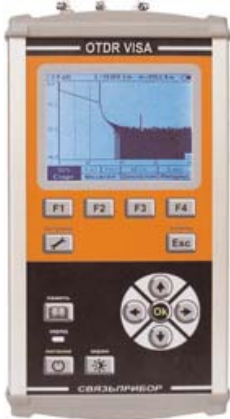


TRACE / FAULT LOCATORS




OTDR

INSTRUMENT	TECHNICAL SPECIFICATIONS																								
<div style="text-align: center; font-weight: bold; font-size: 1.2em; margin-bottom: 20px;">OTDR GAMMA LITE</div>  <p>The image shows the OTDR GAMMA LITE, a handheld device with a color TFT screen displaying a menu with options like 'App. Installation', 'Test Station', 'Ping', 'Settings', and 'PC Connection'. It has a power button, an OK button, and a document icon button on the right side.</p>	<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;">Fiber tipe</td> <td>Singlemode</td> </tr> <tr> <td>Optical Connector</td> <td>FC / PC</td> </tr> <tr> <td>Wavelength, nm</td> <td>1310±20 / 1550±20</td> </tr> <tr> <td>Dynamic range, dB</td> <td>32 / 30</td> </tr> <tr> <td>Attenuation Dead zone, m</td> <td>10</td> </tr> <tr> <td>Event Dead zone, m</td> <td>3</td> </tr> <tr> <td>Pulse width, ns</td> <td>8÷20 000</td> </tr> <tr> <td>Measured distances, km</td> <td>5, 10, 25, 50, 75, 100, 160</td> </tr> <tr> <td>Loss resolution, dB</td> <td>0,001</td> </tr> <tr> <td>Linearity, dB/dB</td> <td>0,05</td> </tr> <tr> <td>Sampling points</td> <td>Up to 64 000</td> </tr> <tr> <td>Sampling Resolution, m</td> <td>0,2 ÷ 50</td> </tr> </table> <ul style="list-style-type: none"> ■ Color screen TFT 680x480 ■ TouchScreen ■ Quick start ■ PC link USB-port ■ Support mouse and external Flash memory ■ Standard format Bellcore ■ Forming and Analysis of reports ■ Li-Ion accumulator battery ■ 226x125x44 mm <p style="margin-top: 10px;">Ethernet analyzer, IP Test (<i>Ping, IPTV</i>), USB-host (<i>flash, mouse</i>) One-touch measuring, Smart Marker, Test Station</p> <p>OPTION: VFL</p>	Fiber tipe	Singlemode	Optical Connector	FC / PC	Wavelength, nm	1310±20 / 1550±20	Dynamic range, dB	32 / 30	Attenuation Dead zone, m	10	Event Dead zone, m	3	Pulse width, ns	8÷20 000	Measured distances, km	5, 10, 25, 50, 75, 100, 160	Loss resolution, dB	0,001	Linearity, dB/dB	0,05	Sampling points	Up to 64 000	Sampling Resolution, m	0,2 ÷ 50
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<div style="text-align: center; font-weight: bold; font-size: 1.2em; margin-bottom: 20px;">OTDR GAMMA LUXE</div>  <p>The image shows the OTDR GAMMA LUXE, a handheld device with a larger color TFT screen and a full QWERTY keyboard. The screen displays a menu with options like 'WDR', 'PM', 'OTDR', 'VFL', and 'Ethernet'. It has a 15V battery indicator and various status icons at the top.</p>	<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;">Fiber tipe</td> <td>Singlemode</td> </tr> <tr> <td>Optical Connector</td> <td>FC or PC</td> </tr> <tr> <td>Wavelength, nm</td> <td>1310±20 / 1550±20</td> </tr> <tr> <td>Dynamic range, dB</td> <td>34 / 32</td> </tr> <tr> <td>Attenuation Dead zone, m</td> <td>8</td> </tr> <tr> <td>Event Dead zone, m</td> <td>3</td> </tr> <tr> <td>Pulse width, ns</td> <td>6÷20 000</td> </tr> <tr> <td>Measured distances, km</td> <td>5, 10, 25, 50, 75, 100, 160</td> </tr> <tr> <td>Loss resolution, dB</td> <td>0,001</td> </tr> <tr> <td>Linearity, dB/dB</td> <td>0,05</td> </tr> <tr> <td>Sampling points</td> <td>Up to 80 000</td> </tr> <tr> <td>Sampling Resolution, m</td> <td>0,2 ÷ 20</td> </tr> </table> <ul style="list-style-type: none"> ■ Color screen TFT 800x480 ■ Touch Screen ■ Quick start ■ PC link USB-port ■ Support mouse and external Flash memory ■ Standard format Bellcore ■ Forming and Analysis of reports ■ Li-Ion accumulator battery ■ 270×240×120 mm. <p style="margin-top: 10px;">Ethernet analyzer, IP Test (<i>Ping, IPTV</i>) One-touch measuring, Smart Marker, Test Station</p> <p>OPTIONS: VFL, PM (optic power meter) TDR, VDSL analyzer</p>	Fiber tipe	Singlemode	Optical Connector	FC or PC	Wavelength, nm	1310±20 / 1550±20	Dynamic range, dB	34 / 32	Attenuation Dead zone, m	8	Event Dead zone, m	3	Pulse width, ns	6÷20 000	Measured distances, km	5, 10, 25, 50, 75, 100, 160	Loss resolution, dB	0,001	Linearity, dB/dB	0,05	Sampling points	Up to 80 000	Sampling Resolution, m	0,2 ÷ 20
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OTDR @ TESTER

INSTRUMENT	TECHNICAL SPECIFICATIONS																																										
<h2 style="margin: 0;">OTDR VISA</h2> 	<p style="text-align: center;">OTDR with optic power meter (LUX M)</p> <table style="width: 100%; border: none;"> <tr> <td style="width: 50%;">Fiber tipe</td> <td>Singlemode</td> </tr> <tr> <td>Optical Connector</td> <td>FC or PC</td> </tr> <tr> <td>Wavelength, nm</td> <td>1310±20 / 1550±20</td> </tr> <tr> <td>Measured distances</td> <td>1,5; 3; 5; 10; 20; 40; 80; 160</td> </tr> <tr> <td>Pulse width, ns</td> <td>4 ÷ 20 000</td> </tr> <tr> <td>Sampling Resolution, m</td> <td>0,4 ÷ 50</td> </tr> <tr> <td>Dynamic range, Dead zone</td> <td>M0, M1, M2</td> </tr> </table> <table border="1" style="width: 100%; border-collapse: collapse; margin-top: 10px;"> <thead> <tr> <th rowspan="2">Module</th> <th rowspan="2">Dynamic range, dB</th> <th colspan="2">Dead zone, m</th> </tr> <tr> <th>Event</th> <th>Attenuation</th> </tr> </thead> <tbody> <tr> <td>M0</td> <td>37/35</td> <td>1,5</td> <td>5</td> </tr> <tr> <td>M1</td> <td>33/31</td> <td>2</td> <td>6</td> </tr> <tr> <td>M2</td> <td>27/25</td> <td>3</td> <td>10</td> </tr> </tbody> </table> <p>Optic power meter (LUX M):</p> <table style="width: 100%; border: none;"> <tr> <td style="width: 50%;">Fiber tipe</td> <td>Singlemode</td> </tr> <tr> <td>Optical Connector</td> <td>FC or PC</td> </tr> <tr> <td>Wavelength, nm</td> <td>1310±20 / 1550±20</td> </tr> <tr> <td>Measured range</td> <td>+6 ÷ -70 dBm</td> </tr> <tr> <td>Measuring units</td> <td>dBm, mWt, dB</td> </tr> </table> <p>OPTIONS: VFL LUX M (Optic Power Meter) LUX S (Optic Light Source)</p>	Fiber tipe	Singlemode	Optical Connector	FC or PC	Wavelength, nm	1310±20 / 1550±20	Measured distances	1,5; 3; 5; 10; 20; 40; 80; 160	Pulse width, ns	4 ÷ 20 000	Sampling Resolution, m	0,4 ÷ 50	Dynamic range, Dead zone	M0, M1, M2	Module	Dynamic range, dB	Dead zone, m		Event	Attenuation	M0	37/35	1,5	5	M1	33/31	2	6	M2	27/25	3	10	Fiber tipe	Singlemode	Optical Connector	FC or PC	Wavelength, nm	1310±20 / 1550±20	Measured range	+6 ÷ -70 dBm	Measuring units	dBm, mWt, dB
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<h2 style="margin: 0;">OTDR VISA USB</h2> 	<p>OTDR VISA USB: 2 Wavelength 1310 и 1550 nm TECHNICAL SPECIFICATIONS – OTDR VISA</p> <p>VISA 1310 USB, VISA 1550 USB, VISA 1625 USB: 1 Wavelength 1310 / 1550 / 1625 nm (PON) TECHNICAL SPECIFICATIONS – VISA 1310 / 1550 / 1625</p> <ul style="list-style-type: none"> ■ USB feed ■ Always ready ■ Standard format Bellcore ■ Forming and Analysis of reports ■ 125x80x45 mm <p>NO OPTIONS</p>																																										




ADSL/ADSL2+ / xDSL

INSTRUMENT	TECHNICAL SPECIFICATIONS														
<div style="text-align: center; margin-bottom: 10px;"><h3>GAMMA DSL</h3></div>  <p>The image shows the GAMMA DSL instrument, a handheld device with a yellow top section and a black body. It features a color TFT display showing a menu with various icons for DSL-related functions. The top panel has several ports labeled ADSL, Rx/Tx, A, B, C, Tx, and Ethernet. The bottom panel has a numeric keypad and function buttons. The text 'ИПК-ПРО ГАММА DSL' is visible at the bottom of the device.</p>	<ul style="list-style-type: none"> ■ Color TFT display 800x480 ■ PC communication through USB ■ Support mouse and external Flash memory ■ Touch Screen ■ Quick start <p>DSL measurements :</p> <ul style="list-style-type: none"> ■ frequency measurements ADSL/ADSL2+, xDSL ■ Bit Rate Potential (BRP) with loss analyzer ■ monitoring of the noise and velocity ■ Masks List, Fault Definition <p>Build in modem for DSLAM:</p> <ul style="list-style-type: none"> ■ Bit Rate rate and quality of ADSL channel ■ monitoring of (BRP) <p>TDR with power pulse and high resolution for the cables with the great attenuation</p> <p>Bridge for the measurement insulation resistance, loop, ohmic asymmetry, electrical capacity for all type cable</p> <p>OPTION: far end generator</p>														
<div style="text-align: center; margin-bottom: 10px;"><h3>ALFA DSL</h3></div>  <p>The image shows the ALFA DSL instrument, a handheld device with a black body and a yellow top section. It features a color TFT display showing a menu with various icons for DSL-related functions. The top panel has several ports labeled ADSL, Rx/Tx, A, B, C, Tx, and Ethernet. The bottom panel has a numeric keypad and function buttons. The text 'ALFA DSL' is visible at the top of the device.</p>	<p>ADSL Test + RFL (Resistance Fault Locator) + TDR</p> <p>Test of ADSL/ADSL2/ADSL2+ line (with DSLAM) :</p> <ul style="list-style-type: none"> ■ SNR (signal-noise ratio) ■ Insertion Loss ■ Bitrate (BRP) Downstream and Upstream ■ Spectrum Annex A & Annex B <p>Fault location:</p> <ul style="list-style-type: none"> ■ Insulation fault (RFL) ■ Shot (RFL, TDR) ■ Open (TDR, RFL) ■ Bad matching of the line (TDR) ■ Bad connections with reflection (TDR) <p>Measuring:</p> <ul style="list-style-type: none"> ■ Insulation resistance (BRIDGE) ■ Electrical capacity (BRIDGE) ■ Loop resistance and ohmic asymmetry (BRIDGE) ■ Voltage on line <table style="width: 100%; border: none;"> <tr> <td style="padding: 5px;">Insulation resistance</td> <td style="padding: 5px;">1 kOhm – 50 GOhm ± 2%</td> </tr> <tr> <td style="padding: 5px;">Electrical capacity</td> <td style="padding: 5px;">0,1 – 2000 nF ± 2%</td> </tr> <tr> <td style="padding: 5px;">Loop resistance</td> <td style="padding: 5px;">0 – 10 kOhm ± 0,1%</td> </tr> <tr> <td style="padding: 5px;">Test voltage</td> <td style="padding: 5px;">400 V, 180 V</td> </tr> <tr> <td style="padding: 5px;">Fault insulation located</td> <td style="padding: 5px;">0 – 20 MOhm</td> </tr> <tr> <td style="padding: 5px;">Accuracy of fault location</td> <td style="padding: 5px;">0,1%+1m</td> </tr> <tr> <td style="padding: 5px;">Voltage measurement</td> <td style="padding: 5px;">0 – 300 V</td> </tr> </table>	Insulation resistance	1 kOhm – 50 GOhm ± 2%	Electrical capacity	0,1 – 2000 nF ± 2%	Loop resistance	0 – 10 kOhm ± 0,1%	Test voltage	400 V, 180 V	Fault insulation located	0 – 20 MOhm	Accuracy of fault location	0,1%+1m	Voltage measurement	0 – 300 V
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Ethernet / E1 ANALIZERS

INSTRUMENT	TECHNICAL SPECIFICATIONS																										
<p style="text-align: center;">ATLAN Gigabit Ethernet ANALIZER</p>  <p>The image shows the ATLAN Gigabit Ethernet Analyzer, a handheld device with a blue and grey casing. It features a color LCD screen displaying a menu in Russian, and a keypad with function keys labeled F1-F4, P1-P3, M1-M4, and navigation keys. The device has various ports at the top, including LAN and fiber optic ports.</p>	<ul style="list-style-type: none"> ■ TEST in ETHERNET LAN standard RFC-2544 (2 modules) ■ Cooper interface 10/100/1000 Mbit/s, ■ Optic interface 1000 Mbit/s ■ Fault locator function for cooper cable ■ LCD 320x240 ■ Quick start ■ PC link USB-port 																										
<p style="text-align: center;">AT-E1 ANALIZER E1</p>  <p>The image shows the AT-E1 ANALIZER E1, a handheld device with a black casing. It features a monochrome LCD screen displaying a menu in Russian, and a keypad with function keys labeled F1-F4, P1-P3, and navigation keys. Below the main image is a technical drawing showing the device's dimensions: a height of 200 mm, a width of 40 mm, and a depth of 105 mm.</p>	<p>Anilyzer of E1 channel:</p> <ul style="list-style-type: none"> ■ 42 000 calculation of errors number ■ indication of the emergency conditions ■ measurement of the frequency and level ■ displaying of the input signal shape (oscilloscope) ■ measurement of the jitter -saving and displaying of the data ■ display LCD 320x240 ■ Quick start ■ PC link USB-port ■ chock-resistant and water-resistant aluminum case <table style="width: 100%; border: none;"> <tr> <td style="width: 50%;">Impedance,</td> <td>120 Ohm / >4 kOm</td> </tr> <tr> <td>Gate, dB</td> <td>0, 6, 12, 24, 30, 36, 43</td> </tr> <tr> <td>Frequency</td> <td>2048000 ± 6000 Hz</td> </tr> <tr> <td>Test</td> <td>2^N-1 (N = 6, 7, 9, 10, 11, 15, 20, 23)</td> </tr> <tr> <td>Mistakes</td> <td>Code, Bit, FAS, MFAS, CRC, E-bit</td> </tr> <tr> <td>FAULT</td> <td>LOS, AIS, LOF, LOM, RAI, MRAI</td> </tr> <tr> <td>KM</td> <td>10⁻¹ – 10⁻¹⁰</td> </tr> <tr> <td>Range of mistakes</td> <td>0 – 999999999</td> </tr> <tr> <td>Jitter Measuring:</td> <td></td> </tr> <tr> <td>20 Hz - 900 Hz</td> <td>10 TI</td> </tr> <tr> <td>900 Hz - 18 kHz</td> <td>9/Fj TI</td> </tr> <tr> <td>18 kHz - 50 kHz</td> <td>0.5 TI</td> </tr> <tr> <td>50 kHz - 100 kHz</td> <td>0.4 TI</td> </tr> </table>	Impedance,	120 Ohm / >4 kOm	Gate, dB	0, 6, 12, 24, 30, 36, 43	Frequency	2048000 ± 6000 Hz	Test	2 ^N -1 (N = 6, 7, 9, 10, 11, 15, 20, 23)	Mistakes	Code, Bit, FAS, MFAS, CRC, E-bit	FAULT	LOS, AIS, LOF, LOM, RAI, MRAI	KM	10 ⁻¹ – 10 ⁻¹⁰	Range of mistakes	0 – 999999999	Jitter Measuring:		20 Hz - 900 Hz	10 TI	900 Hz - 18 kHz	9/Fj TI	18 kHz - 50 kHz	0.5 TI	50 kHz - 100 kHz	0.4 TI
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BRIDGES / RFL + TDR

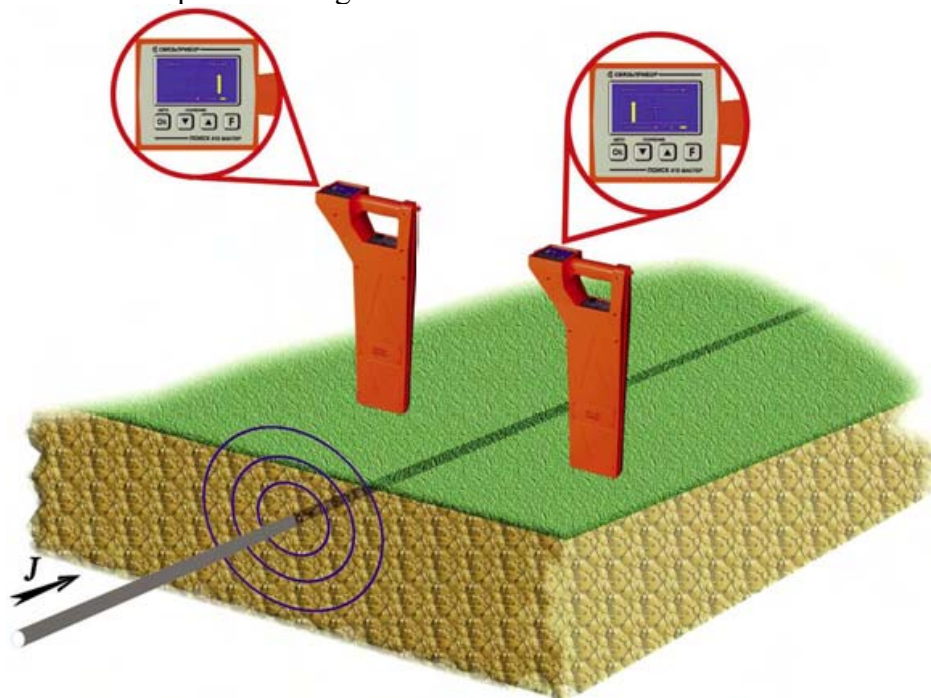
INSTRUMENT	TECHNICAL SPECIFICATIONS														
<h3 style="margin: 0;">ALFA</h3>  <p>The ALFA instrument is a handheld device with a black casing and a yellow display. The display shows a graph with a peak and numerical values: AC >50 GΩ, DC 780 MΩ, AB >50 GΩ, and a large '780 MΩ' in the center. Below the display are several function buttons and a numeric keypad.</p>	<p>TDR for all type cables: telecom, power, etc - faults, splices, length, crosstalk.</p> <p>RFL (Resistance Fault Locator) for all type telecom cables, low voltage power cables.</p> <p>Measuring Bridge. Memory of characteristics is 50 working cables, 35 000 pairs of scheduled measurements, 1000 traces.</p> <p>Fault location (RFL):</p> <table style="width: 100%; border: none;"> <tr> <td style="padding: 2px 10px 2px 0;">Test voltage</td> <td style="padding: 2px 10px 2px 0;">400 V, 180 V</td> </tr> <tr> <td style="padding: 2px 10px 2px 0;">Fault insulation located</td> <td style="padding: 2px 10px 2px 0;">0 – 20 MOhm</td> </tr> <tr> <td style="padding: 2px 10px 2px 0;">Accuracy of fault location</td> <td style="padding: 2px 10px 2px 0;">0,1%+1m</td> </tr> </table> <p>Measuring Bridge:</p> <table style="width: 100%; border: none;"> <tr> <td style="padding: 2px 10px 2px 0;">Insulation resistance</td> <td style="padding: 2px 10px 2px 0;">1 kOhm – 50 GOhm ± 2%</td> </tr> <tr> <td style="padding: 2px 10px 2px 0;">Electrical capacity</td> <td style="padding: 2px 10px 2px 0;">0,1 – 2000 nF ± 2%</td> </tr> <tr> <td style="padding: 2px 10px 2px 0;">Loop resistance</td> <td style="padding: 2px 10px 2px 0;">0 – 10 kOhm ± 0,1%</td> </tr> <tr> <td style="padding: 2px 10px 2px 0;">Voltage measurement</td> <td style="padding: 2px 10px 2px 0;">0 – 300 V</td> </tr> </table>	Test voltage	400 V, 180 V	Fault insulation located	0 – 20 MOhm	Accuracy of fault location	0,1%+1m	Insulation resistance	1 kOhm – 50 GOhm ± 2%	Electrical capacity	0,1 – 2000 nF ± 2%	Loop resistance	0 – 10 kOhm ± 0,1%	Voltage measurement	0 – 300 V
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Loop resistance	0 – 10 kOhm ± 0,1%														
Voltage measurement	0 – 300 V														
<h3 style="margin: 0;">TDR GAMMA</h3>  <p>The TDR GAMMA instrument is a handheld device with a black casing and a yellow display. The display shows a graph with a curve. Below the display are several function buttons and a numeric keypad. The text 'РЕФЛЕКТОМЕТР ГАММА' is visible at the bottom of the device.</p>	<p>TDR for all type cables: telecom, power, etc - faults, splices, length, crosstalk.</p> <ul style="list-style-type: none"> ■ Color TFT display 800x480. ■ PC communication through USB or Ethernet. ■ Touch Screen ■ Quick start <table style="width: 100%; border: none;"> <tr> <td style="padding: 2px 10px 2px 0;">Range of measuring:</td> <td style="padding: 2px 10px 2px 0;">130 m ÷ 130 km</td> </tr> <tr> <td style="padding: 2px 10px 2px 0;">Maximal resolution</td> <td style="padding: 2px 10px 2px 0;">0,2 m</td> </tr> <tr> <td style="padding: 2px 10px 2px 0;">Overlapping attenuation</td> <td style="padding: 2px 10px 2px 0;">80 dB</td> </tr> <tr> <td style="padding: 2px 10px 2px 0;">Adjusted amplitude of measuring pulse</td> <td style="padding: 2px 10px 2px 0;">6 – 18 V</td> </tr> <tr> <td style="padding: 2px 10px 2px 0;">Measuring pulse duration</td> <td style="padding: 2px 10px 2px 0;">16 ÷ 50 000 ns</td> </tr> <tr> <td style="padding: 2px 10px 2px 0;">Range of VF (Velocity Factor)</td> <td style="padding: 2px 10px 2px 0;">0,143÷1 with step 0,001</td> </tr> </table>	Range of measuring:	130 m ÷ 130 km	Maximal resolution	0,2 m	Overlapping attenuation	80 dB	Adjusted amplitude of measuring pulse	6 – 18 V	Measuring pulse duration	16 ÷ 50 000 ns	Range of VF (Velocity Factor)	0,143÷1 with step 0,001		
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Range of VF (Velocity Factor)	0,143÷1 with step 0,001														
<h3 style="margin: 0;">TDR MASTER</h3>  <p>The TDR MASTER instrument is a handheld device with a black casing and a yellow display. The display shows a graph with a curve. Below the display are several function buttons and a numeric keypad. The text 'РД Мастер' is visible at the top of the device.</p>	<p>TDR for all type cables: telecom, power, etc - faults, splices, length, crosstalk.</p> <p>High characteristics with simple use.</p> <ul style="list-style-type: none"> ■ LCD display 320x240 ■ Multifunctional menu ■ PC communication through USB <table style="width: 100%; border: none;"> <tr> <td style="padding: 2px 10px 2px 0;">Range of measuring:</td> <td style="padding: 2px 10px 2px 0;">50 m ÷ 30 km</td> </tr> <tr> <td style="padding: 2px 10px 2px 0;">Maximal resolution</td> <td style="padding: 2px 10px 2px 0;">0,2 m</td> </tr> <tr> <td style="padding: 2px 10px 2px 0;">Overlapping attenuation</td> <td style="padding: 2px 10px 2px 0;">96 dB</td> </tr> <tr> <td style="padding: 2px 10px 2px 0;">Amplitude of measuring pulse</td> <td style="padding: 2px 10px 2px 0;">12 V</td> </tr> <tr> <td style="padding: 2px 10px 2px 0;">Measuring pulse duration</td> <td style="padding: 2px 10px 2px 0;">8 ÷ 16 000 ns</td> </tr> <tr> <td style="padding: 2px 10px 2px 0;">Range of VF (Velocity Factor)</td> <td style="padding: 2px 10px 2px 0;">0,143÷1 with step 0,001</td> </tr> </table>	Range of measuring:	50 m ÷ 30 km	Maximal resolution	0,2 m	Overlapping attenuation	96 dB	Amplitude of measuring pulse	12 V	Measuring pulse duration	8 ÷ 16 000 ns	Range of VF (Velocity Factor)	0,143÷1 with step 0,001		
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Range of VF (Velocity Factor)	0,143÷1 with step 0,001														

TRACE / FAULT LOCATOR

INSTRUMENT	TECHNICAL SPECIFICATIONS
<p style="text-align: center;">410 MASTER TRACE / FAULT LOCATOR</p> 	<ul style="list-style-type: none"> ■ 410 Master devices are equipped by the dynamic low temperature OLED-display with high britness and contrast ■ Master version displays the map of investigated district and cable location. Such mode is called «Cable map» and contains a clear graphical information, which is very convenient for quick locating of the trace ■ «Spectrum» - energie spectrum for the power cable locating without generator; broadband spectrum for pipes and underground communications locating with «life sound» ■ «2F» - faults locating by double-frequencies amplitude method ■ «Alien Generator» - working with any «alien» generator (from 200 Hz up to 4 kHz) <p>Working frequencies 6562,5 / 2187,5 / 273,5 Hz Passband in «SPECTRUM» mode 10 ÷ 20 000 Hz Maximal trace depth that can be defined 6 m Accuracy of locating 10 sm Locating of insulation resistance fault 0 – 100 kOhm Powering Ni-Mh 4 units, 2,3 A/h Time of continuous working (not less) 13 h Size / Weigh (with battery) 257 x 88 x 685 mm / 1,9 kg</p>
<p style="text-align: center;">FL 410 Master <i>Fault locator</i></p> 	<ul style="list-style-type: none"> ■ The dynamic low temperature OLED-display ■ Working frequencies 273,5 ± 0,5 Hz ■ Passband at level of -3 dB 2,5 Hz ■ Locating of insulation resistance fault 0 – 1 MOhm ■ Size 138 x 68 x 187 mm ■ Weigh (with battery) 0,65 kg
<p style="text-align: center;">Transmitter 410 Master</p> 	<ul style="list-style-type: none"> ■ build-in accumulator for the 8 hours of continuous working ■ build-in inductor for contactless connection under the working conditions ■ auto matching with the line ■ auto tuning of the power ■ working on two frequencies simultaneously

WHERE TO DIG? INNOVATIVE METHODS

410 Master devices are equipped by the dynamic low-temperature OLED-display with high brightness and contrast. «Master» version displays the map of investigated district and cable location. Such mode is called «cable map» and contains a clear graphical information, which is very convenient for quick locating of the trace.



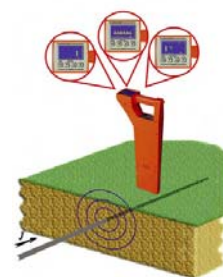
The cable location is designated by the arrow on the picture. If the measuring device is on the left cables side, then the cable is displayed on the right side. And vice versa. At came closer to the cable the sound signal becomes louder, the arrow becomes bigger and closer to cross on the displays center. The cross defines a cable location with high accuracy (as at «at minimum» locating). At this moment the depth of cable location is defined without errors of measurement device positioning.

The arrow displayed shows the signal value and blinks at the pause. If a capture zone takes an «alien» cable, the arrow changes its direction back and give a sound (control «friend-or-foe»).

Faults location

Besides of tradition faults locating methods in Poisk-310/410 devices is applied a unique double- frequencies method. Advantages: for fault locating on any cable segment it is no need to continuously investigate the trace. To define if there is fault on the segment or not, you should to compare indications at the beginning and at the end of the cable. To find the exact fault place you should to find the point with spasmodic indications changes.

The measuring device is not pass the defect on the cable, even if it bypass the segment (length up to 300 m). There appears a possibility to divide the cable on segments and quickly locate a faulted one. It makes the work more easy. The new double-frequencies method on the city cables is more sensitive and convenient than the tradition one.



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