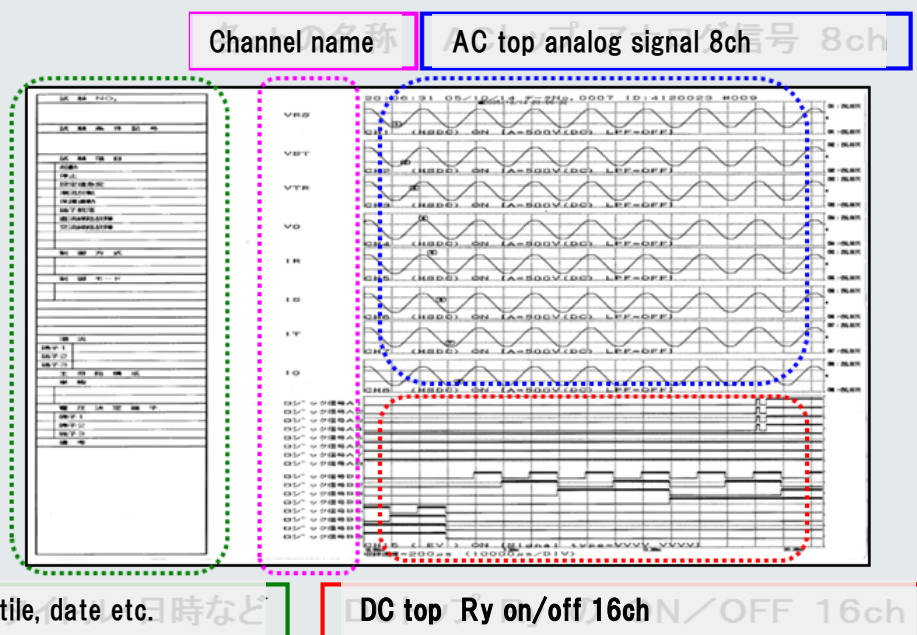


# -Power line inspection- Power equipment maintenance and management (relay counter testing)

Digital oscillographic recorders help to determine causes of abnormal production equipment stoppages and IT equipment data corruption.

- Protective relay counter tests should be implemented in power substations as tests for transmission system switching. These tests require simultaneous multi-channel measurement of 24ch/32ch analog signals. After the operation timing of high-voltage circuit breakers is determined, main circuit and auxiliary contact operation is tested to verify that operating time and variation of main circuit / auxiliary contacts remains within regulations. The gap between actual breaker operation timing and operation timing on the control panel (relay circle) can also be verified.
- The RA2800A is AC110V and AC63.5V capable in 1 cm full scale settings and headers can be created with recording mode.

Relay count test record example- ACV and relay operation simultaneous recording.



## Grid-connected protective equipment for generator systems

Momentary voltage drops at power plants in parallel-off can cause outages in information equipment such as computers, OA devices and industrial robots if the voltage drop is greater than 10% of the rated voltage. Constant voltage should be within 10% (90 V is the lower limit on 100 V system). Momentary voltage drops generally last around 0.3 seconds. To prevent this, back-to-back connections are installed and counter relay tests are performed. According to JEAC9701-2010(JESC E0019(2010)) protective equipment for grid interconnection of solar power generation systems should be able to restore voltage within 0.2 seconds by March 2017.

Digital Oscilloscope Recorder

# RA2000A Series Omniace III

## Did you know?

The RA2300A/RA2800A can simultaneously measure voltage, current, control timing, vibration, rotation, pressure and more directly from sensors.



Item	Item code	Spec
2CH High Resolution Amp	AP11-101	$\pm 100\text{mV} \sim \pm 500\text{V}$ , A/D res 16bit $10\mu\text{s}$
2CH High Speed Amp	AP11-103	$\pm 100\text{mV} \sim \pm 500\text{V}$ , A/D res 12bit $1\mu\text{s}$
Event Amp	AP11-105	Input: 8 logic (Voltage/Contact)
2CH TC·DC Amp	AP11-106A	Input: R·T·J·K·W ( $\pm 100\text{mV} \sim \pm 50\text{V}$ )
2CH AC Strain Amp	AP11-104A	Response frequency: 2KHz
2CH DC Strain Amp	AP11-110	Response frequency: 50KHz
2CH Vibration/RMS Amp	AP11-109	$\pm 100\text{mV} \sim \pm 500\text{V}$
F/V Converter	AP11-108	Input: 1KHz $\sim$ 10KHz

