@Initialize

	**Name:** Initialize.vi
	Description: Establishing the VISA connection and initializing the system.
	Input Terminals: ● **VISA resource name** - the connection ID of the target device. ● **ID Query(optional)** - if true, request the ID of the target device. ● **Reset (optional)** - if true, reset the device. ● **error in (optional)** - passing the error message from the previous block(if any).
	Output Terminals ● **VISA resource name out** - passing the connection ID of the target device to next block. ● **error out** - output error message.

@Configuration

	**Name:** Configure Channel Input.vi
	Description: Configure the condition of the input channel.
	Input Terminals: ● **VISA resource name** - the connection ID of the target device. ● **Coupling** – AC/DC ● **Attenuation** – 1x/10x attenuation. ● **Impedance** – 50 ohm/1M ohm input impedance. ● **Enable Filter** – enable/disable the 100K Hz low pass filter. ● **error in** - passing the error message from the previous block(if any).
	Output Terminals: ● **VISA resource name out** - passing the connection ID of the target device to next block. ● **error out** - output error message.
	**Name:** Configure Trigger.vi
	Description: Configure the condition of the channel trigger.
	Input Terminals: ● **VISA resource name** - the connection ID of the target device. ● **Channel** – select Channel 1/Channel 2 for setting the trigger. ● **Trigger Level Type** – Voltage/Percentage ● **Trigger Level** – specify the trigger level ● **Trigger Slop** – Positive/Negative ● **Sensitivity** – High/Medium/Low ● **error in** - passing the error message from the previous block(if any).
	Output Terminals: ● **VISA resource name out** - passing the connection ID of the target device to next block. ● **error out** - output error message.
	**Name:** Configure Arming.vi
	Description: Configure the Gate Time or External Arm. (if measurement applied)
	Input Terminals:

	• Depend on the selected Type
	Output Terminals: • Depend on the selected Type
	**Name:** Configure Arming (Auto).vi
	Description: Using Auto Gate Time for the measurement
	Input Terminals: • **VISA resource name** - the connection ID of the target device. • **Measurement** – select the measurement applied for auto arm. • **Tme Interval** – set delay conditions. • **error in** - passing the error message from the previous block(if any).
	Output Terminals: • **VISA resource name out** - passing the connection ID of the target device to next block. • **error out** - output error message.
	**Name:** Configure Arming (digits).vi
	Description: Usr specified significant digits of Arming for the measurement
	Input Terminals: • **VISA resource name** - the connection ID of the target device. • **Measurement** - select the measurement applied for digits arming. • **Digits** – the significant digits of arming. • **error in** - passing the error message from the previous block(if any).
	Output Terminals: • **VISA resource name out** - passing the connection ID of the target device to next block. • **error out** - output error message.
	**Name:** Configure Arming (External).vi
	Description: Using the external arm.
	Input Terminals: • **VISA resource name** - the connection ID of the target device. • **Measurement** - select the measurement applied for external arm. • **Start Slop** – Positive/Negative • **Stop Type** – Auto/Positve/Negative/Time • **Stop Time** – set the stop time after the external arm start. • **Time Interval Start** – Start condition of external arm for Time Interval measurement. • **Time Interval Stop** – Stop condition of external arm for Time Interval measurement. • **error in** - passing the error message from the previous block(if any).
	Output Terminals: • **VISA resource name out** - passing the connection ID of the target device to next block. • **error out** - output error message
	**Name:** Configure Arming (Time).vi
	Description: User defined gate time.
	Input Terminals: • **VISA resource name** - the connection ID of the target device. • **Measurement** – select the measurement applied for user defined gate time.

	• **Arm Time** – user defined gate time. • **error in** - passing the error message from the previous block(if any).
	Output Terminals: • **VISA resource name out -** passing the connection ID of the target device to next block. • **error out -** output error message.
	**Name:** Configure Frequency.vi
	Description: Use Frequency measurement function.
	Input Terminals: • **VISA resource name** - the connection ID of the target device. • **Channel** – select the input channel applied for the measurement. • **Frequency Estimate (optional)** – defined the significant digits of the measurement. • **error in** - passing the error message from the previous block(if any).
	Output Terminals: • **VISA resource name out** - passing the connection ID of the target device to next block. • **error out -** output error message.
	**Name:** Configure Frequency Ratio.vi
	Description: Use Frequency Ratio measurement function.
	Input Terminals: • **VISA resource name** - the connection ID of the target device. • **Primary Input Channel** – select the input channel as the numerator. • **Secondary Input Channel** – select the input channel as the denominator. • **Frequency Estimate (optional)** – defined the significant digits of the measurement. • **error in** - passing the error message from the previous block(if any).
	Output Terminals: • **VISA resource name out -** passing the connection ID of the target device to next block. • **error out -** output error message.
	**Name:** Configure Period.vi
	Description: Use Period measurement function.
	Input Terminals: • **VISA resource name** - the connection ID of the target device. • **Channel** – select the input channel applied for the measurement. • **Period Estimate (optional)** – defined the significant digits of the measurement. • **error in** - passing the error message from the previous block(if any).
	Output Terminals: • **VISA resource name out -** passing the connection ID of the target device to next block. • **error out** - output error message.
	Name: Configure Edge Time.vi
	Description: Use Rising/Falling Time measurement function.
	Input Terminals: • **VISA resource name** - the connection ID of the target device. • **Edge Time Type** – select time measurement of rising/falling edge. • **Reference Type** – voltage/percentage

	• **Lower Reference Value** – set the lower reference by voltage/percentage. • **Upper Reference Value** – set the upper reference by voltage/percentage. • **error in** - passing the error message from the previous block(if any).
	Output Terminals: • **VISA resource name out** - passing the connection ID of the target device to next block. • **error out** - output error message.
	**Name:** Configure Pulse Width.vi
	Description: Use Positive/Negative pulse width measurement function.
	Input Terminals: • **VISA resource name** - the connection ID of the target device. • **Pulse Width Type** – select the time measurement of Positive/Negative pulse width. • **Reference Type** – voltage/percentage • **Reference Value** – set the reference by voltage/percentage. • **error in** - passing the error message from the previous block(if any).
	Output Terminals: • **VISA resource name out** - passing the connection ID of the target device to next block. • **error out** - output error message.
	**Name:** Configure Time Interval.vi
	Description: Use Time Interval measurement function.
	Input Terminals: • **VISA resource name** - the connection ID of the target device. • **Enable Common** – enable/disable common of single channel input. • **error in** - passing the error message from the previous block(if any).
	Output Terminals: • **VISA resource name out** - passing the connection ID of the target device to next block. • **error out** - output error message.
	**Name:** Configure Volt Peak.vi
	Description: Use Voltage measurement function.
	Input Terminals: • **VISA resource name** - the connection ID of the target device. • **Channel** – select the input channel applied for the measurement. • **Volt Peak Type** – select Maximum/Minimum/Peak-to-Peak/Average voltage measurement. • **error in** - passing the error message from the previous block(if any).
	Output Terminals: • **VISA resource name out** - passing the connection ID of the target device to next block. • **error out** - output error message.
	**Name:** Configure Phase.vi
	Description: Use Phase Difference measurement function.
	Input Terminals: • **VISA resource name** - the connection ID of the target device. • **error in** - passing the error message from the previous block(if any).

	Output Terminals: ● **VISA resource name out -** passing the connection ID of the target device to next block. ● **error out** - output error message.
	**Name:** Configure Duty Cycle.vi
	Description: Use Duty Cycle measurement function.
	Input Terminals: ● **VISA resource name** - the connection ID of the target device. ● **Reference Type** – voltage/percentage ● **Reference Value** – set the reference value by voltage/percentage ● **error in** - passing the error message from the previous block(if any).
	Output Terminals: ● **VISA resource name out -** passing the connection ID of the target device to next block. ● **error out -** output error message.
	**Name:** Configure Totaliz.vi
	Description: Use Totalize measurement function.
	Input Terminals: ● **VISA resource name** - the connection ID of the target device. ● **error in** - passing the error message from the previous block(if any).
	Output Terminals: ● **VISA resource name out** - passing the connection ID of the target device to next block. ● **error out -** output error message.
	**Name:** Configure Limit.vi
	Description: Configure the limit condition.
	Input Terminals: ● **VISA resource name** - the connection ID of the target device. ● **Enable Limit** – enable/disable limit function. ● **Upper Limit Value** – set the upper limit value. ● **Lower Limit Value** – set the lower limit value. ● **Fail Action** – select the action(continue/stop) if measurement exceed limit. ● **error in** - passing the error message from the previous block(if any).
	Output Terminals: ● **VISA resource name out -** passing the connection ID of the target device to next block. ● **error out** - output error message.
	**Name:** Configure Scale Offset.vi
	Description: Configure the scale and offset parameters.
	Input Terminals: ● **VISA resource name** - the connection ID of the target device. ● **Enable Scale Offset** – enable/disable scaling and offset function. ● **Scale** – set the scale factor to the measurement. ● **Offset** – set the offset level to the measurement. ● **error in** - passing the error message from the previous block(if any).
	Output Terminals:

	• **VISA resource name out -** passing the connection ID of the target device to next block. • **error out -** output error message.
	**Name:** Configure Calculation.vi
	Description: Apply math to measurement data.
	Input Terminals: • **VISA resource name** - the connection ID of the target device. • **Enable Statistic** – enable/disable statistic calculation for measurement data. • **N** – set the number of the samples for statistic calculation. • **Enable Limit Filter** – enable/disable the limit filter for statistic calculation. • **Lower Limit Value** – set the lower limit value for statistic calculation. • **Upper Limit Value** – set the upper limit value for statistic calculation. • **error in** - passing the error message from the previous block(if any).
	Output Terminals: • **VISA resource name out -** passing the connection ID of the target device to next block. • **error out -** output error message.
	**Name:** Configure Reference Time Base.vi
	Description: Configure the Time Base used for the measurement.(for using external time base)
	Input Terminals: • **VISA resource name** - the connection ID of the target device. • **error in** - passing the error message from the previous block(if any).
	Output Terminals: • **VISA resource name out** - passing the connection ID of the target device to next block. • **error out** - output error message

@Action/Status

	**Name:** Save Recall Setup.vi
	Description: Savin/Recalling measurement conditions.
	Input Terminals: • **VISA resource name** - the connection ID of the target device. • **Action** – Save/Recall • **Register Number** – select the location to save/recall the setup condition. • **error in** - passing the error message from the previous block(if any).
	Output Terminals: • **VISA resource name out -** passing the connection ID of the target device to next block. • **error out -** output error message

@Low Level Data

	**Name:** Initiate.vi
	Description: Initiate the measurement.
	Input Terminals: • **VISA resource name** - the connection ID of the target device.

	• **Run/Single** – choose to continues fetch data or fetch single data • **error in** - passing the error message from the previous block(if any).
	Output Terminals: • **VISA resource name out -** passing the connection ID of the target device to next block. • **error out -** output error message
	**Name:** Abort.vi
	Description: Abort the measurement.
	Input Terminals: • **VISA resource name** - the connection ID of the target device. • **error in** - passing the error message from the previous block(if any).
	Output Terminals: • **VISA resource name out** - passing the connection ID of the target device to next block. • **error out -** output error message.
	**Name:** Fetch.vi
	Description: Fetch result data.
	Input Terminals: • Depend on the selected type.
	Output Terminals: • Depend on the selected type.
	**Name:** Fetch (Measurement).vi
	Description: Fetch measurement result data.
	Input Terminals: • **VISA resource name** - the connection ID of the target device. • **Measurement** – select the measurement type. • **Totalize Arm Type (optional)** – select the arm type of totalize measurement function. • **error in** - passing the error message from the previous block(if any).
	Output Terminals: • **VISA resource name out** - passing the connection ID of the target device to next block. • **Result** – output the measurement result data. • **error out** - output error message.
	**Name:** Fetch (Limit).vi
	Description: Fetch limit result data.
	Input Terminals: • **VISA resource name** - the connection ID of the target device. • **error in** - passing the error message from the previous block(if any).
	Output Terminals: • **VISA resource name out -** passing the connection ID of the target device to next block. • **Limit Status** – indicate if all data pass limit condition. • **Lower Limit Failure Count** – output the number of data that is below lower limit. • **Upper Limit Failure Count** – output the number of data that is exceed upper limit. • **Total Failure Count** – output the total count of data that fail the limit condition. • **Total Pass Count** – output the total count of data that pass the limit condition.

	• **error out -** output error message.
	**Name:** Fetch (Calculation).vi
	Description: Fetch statistic calculation result data.
	Input Terminals: • **VISA resource name** - the connection ID of the target device. • **Mean** – output the mean the measurement data. • **Standard Deviation** – output the standard deviation of the measurement data. • **Maximum** – output the maximum of the measurement data. • **Minimum** – output the minimum of the measurement data. • **error in** - passing the error message from the previous block(if any).
	Output Terminals: • **VISA resource name out -** passing the connection ID of the target device to next block. • **error out -** output error message.
	**Name:** Scale Offset.vi
	Description: Fetch the result of scaled/offset measurement data.
	Input Terminals: • **VISA resource name** - the connection ID of the target device. • **error in** - passing the error message from the previous block(if any).
	Output Terminals: • **VISA resource name out** - passing the connection ID of the target device to next block. • **Scale Offset Result** – output the scaled/offset measurement data. • **error out** - output error message

@Utility

	**Name:** Reset.vi
	Description: Reset the state of the target device
	Input Terminals: • **VISA resource name** - the connection ID of the target device. • **error in** - passing the error message from the previous block(if any).
	Output Terminals: • **VISA resource name out -** passing the connection ID of the target device to next block. • **error out -** output error message
	**Name:** Error Query.vi
	Description:
	Input Terminals: • **VISA resource name** - the connection ID of the target device. • **error in** - passing the error message from the previous block(if any).
	Output Terminals: • **VISA resource name out -** passing the connection ID of the target device to next block. • **Error Code** – output the error code. • **Error Message** – output the error message. • **error out** - output error message.

	**Name:** Self-Test.vi
	Description: Apply self test function.
	Input Terminals: ● **VISA resource name** - the connection ID of the target device. ● **error in** - passing the error message from the previous block(if any).
	Output Terminals: ● **VISA resource name out -** passing the connection ID of the target device to next block. ● **Self-Test Result Code** – output the self-test result code. ● **Self-Test Result Message** – output the self-test result message. ● **error out -** output error message

@Close

	**Name:** close.vi
	Description: Close the VISA connection.
	Input Terminals: ● **VISA resource name** - the connection ID of the target device. ● **error in** - passing the error message from the previous block(if any).
	Output Terminals: ● **error out -** output error message