

## bert-algorithm

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**Syntax** `bert-algorithm algorithm;`

**Hierarchy Level** `[edit interface ce1-fpc/pic/port]`  
`[edit interface ct1-fpc/pic/port]`  
`[edit interfaces interface-name ds0-options],`  
`[edit interfaces interface-name e1-options],`  
`[edit interfaces interface-name e3-options],`  
`[edit interfaces interface-name t1-options],`  
`[edit interfaces interface-name t3-options]`

**Release Information** Statement introduced before JUNOS Release 7.4.

**Description** Configure the pattern to send in the bit stream during a bit error rate test (BERT). Applies to T1, E3, T3, and multichannel DS3 interfaces, the channelized interfaces (DS3, OC12, STM1), and channelized IQ and IQE interfaces (E1, E3 and DS3).



**NOTE:** When configuring CE1 interfaces on the 10-port Channelized E1/T1 IQE PIC, `bert-algorithm` must be set at the `[edit interface ce1-fpc/pic/port]` hierarchy level.

When configuring CT1 interfaces on the 10-port Channelized E1/T1 IQE PIC, `bert-algorithm` must be set at the `[edit interface ct1-fpc/pic/port]` hierarchy level.

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**Options** `algorithm`—Pattern to send in the bit stream. There are two categories of test patterns: pseudorandom and repetitive. Both patterns conform to CCITT/ITU O.151, O.152, O.153, and O.161 standards. The algorithm can be one of the following patterns:

- `all-ones-repeating`—Pattern is all ones.
- `all-zeros-repeating`—Pattern is all zeros.
- `alternating-double-ones-zeros`—Pattern is alternating pairs of ones and zeros.
- `alternating-ones-zeros`—Pattern is alternating ones and zeros.
- `pseudo-2e3`—Pattern is  $2^3 - 1$ .
- `pseudo-2e4`—Pattern is  $2^4 - 1$ .
- `pseudo-2e5`—Pattern is  $2^5 - 1$ .
- `pseudo-2e6`—Pattern is  $2^6 - 1$ .
- `pseudo-2e7`—Pattern is  $2^7 - 1$ .
- `pseudo-2e9-o153`—Pattern is  $2^9 - 1$ , as defined in the O153 standard.
- `pseudo-2e10`—Pattern is  $2^{10} - 1$ .
- `pseudo-2e11-o152`—Pattern is  $2^{11} - 1$ , as defined in the O152 standard.
- `pseudo-2e15-o151`—Pattern is  $2^{15} - 1$ , as defined in the O151 standard.

- pseudo-2e17—Pattern is  $2^{17} - 1$ .
- pseudo-2e18—Pattern is  $2^{18} - 1$ .
- pseudo-2e20-o151—Pattern is  $2^{20} - 1$ , as defined in the O151 standard.
- pseudo-2e20-o153—Pattern is  $2^{20} - 1$ , as defined in the O153 standard.
- pseudo-2e21—Pattern is  $2^{21} - 1$ .
- pseudo-2e22—Pattern is  $2^{22} - 1$ .
- pseudo-2e23-o151—Pattern is  $2^{23} - 1$ , as defined in the O151 standard.
- pseudo-2e25—Pattern is  $2^{25} - 1$ .
- pseudo-2e28—Pattern is  $2^{28} - 1$ .
- pseudo-2e29—Pattern is  $2^{29} - 1$ .
- pseudo-2e31—Pattern is  $2^{31} - 1$ .
- pseudo-2e32—Pattern is  $2^{32} - 1$ .
- repeating-1-in-4—One bit in four is set to 1; the others are set to 0.
- repeating-1-in-8—One bit in eight is set to 1; the others are set to 0.
- repeating-3-in-24—Three bits in twenty four are set to 1; the others are set to 0.

**Default:** pseudo-2e3

**Usage Guidelines** See Interface Diagnostics, Configuring E3 BERT Properties, Configuring T1 BERT Properties, Configuring T3 BERT Properties, and [\[Unresolved xref\]](#).

**Required Privilege Level** interface—To view this statement in the configuration.  
interface-control—To add this statement to the configuration.

**Related Topics** bert-error-rate, bert-period