chkSum1

Compute the CheckSum1 for the Herkulex command packet

Contents

Syntax

```
c1 = chkSum1(inString)
```

Description

c1 = chkSum1(inString) returns the CheckSum1 of the input hex-string.

- CheckSum1 formula: (PacketSize ^ pID ^ CMD ^ Data[0] ^ Data[1] ^ ... ^ Data[n])&0xFE

Input Arguments

- inString - string of the hexadecimal characters representing different elements of the command packet

Hex string elements: PacketSize, pID, CMD, Data[0], ..., Data[n].

Output Arguments

- c1 - string

Function Codes

```matlab
function c1 = chkSum1(inString)

    col = [];

    for i = 1:2:(length(inString)-1)

        hex = strcat(inString(i), inString(i+1)); % Get first two characters for hex

        col = vertcat(col, hex2dec(hex));

    end
```

```
    temp = col(1);

    for j = 2:length(col)

        temp = bitxor(temp, col(j));

    end

    temp = bitand(temp, hex2dec('FE'));

    c1 = dec2hex(temp,2);

end
```