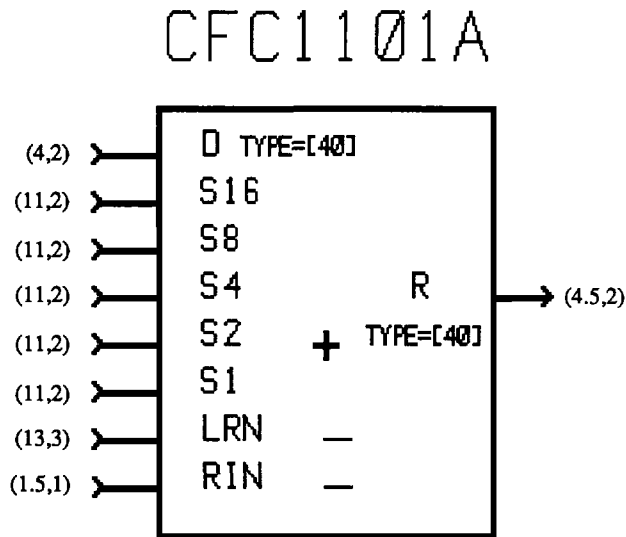


**GENERAL DESCRIPTION: 40-BIT ARITHMETIC SHIFTER**

CFC1101A performs a 40-bit arithmetic shift. The LRN input controls shift direction to left if LRN=1, and to right if LRN=0. Select signals (S16, S8, S4, S2, S1) set the number of bits to be shifted (MAX. shift is 31) Shift left, it can backfill with '1' or '0' by the input RIN; shift right, sign extension is performed. All the outputs are in-phase with the inputs.

**PIN CONNECTION DIAGRAM:****FEATURES:**

- Shift left and right
- Sign extend
- With '1' or '0' backfilled

**EQUIVALENT USED GATES: 689 GATES**  
(for rough area estimates)

**THIS MEGAFUNCTION CONSISTS OF :**  
689 soft-coded gates.

**POWER: NOT AVAILABLE.**

**FAULT COVERAGE(%): 100%**









CFC1101A

SHIFTER

CFC1101A

```

|DDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDRRRRRRRRR
0 1 0 0 0 1 RIN|332222222221111111119876543210IIIIIIII
|1098765432109876543210 NNNNNNNNN
|
|DDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDRRRRRRRRR
0 1 0 0 1 1 RIN|32222222221111111119876543210IIIIIIII
|098765432109876543210 NNNNNNNNN
|
|DDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDRRRRRRRRR
0 1 0 1 0 1 RIN|2222222221111111119876543210IIIIIIII
|98765432109876543210 NNNNNNNNN
|
|DDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDRRRRRRRRR
0 1 0 1 1 1 RIN|222222221111111119876543210IIIIIIII
|8765432109876543210 NNNNNNNNN
|
|DDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDRRRRRRRRR
0 1 1 0 0 1 RIN|22222221111111119876543210IIIIIIII
|765432109876543210 NNNNNNNNN
|
|DDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDRRRRRRRRR
0 1 1 0 1 1 RIN|2222221111111119876543210IIIIIIII
|65432109876543210 NNNNNNNNN
|
|DDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDRRRRRRRRR
0 1 1 1 0 1 RIN|222221111111119876543210IIIIIIII
|5432109876543210 NNNNNNNNN
|
|DDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDRRRRRRRRR
0 1 1 1 1 1 RIN|22221111111119876543210IIIIIIII
|432109876543210 NNNNNNNNN
|
|DDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDRRRRRRRRR
1 0 0 0 0 1 RIN|2222111111119876543210IIIIIIII
|32109876543210 NNNNNNNNN
|
|DDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDRRRRRRRRR
1 0 0 0 1 1 RIN|222111111119876543210IIIIIIII
|2109876543210 NNNNNNNNN
|
|DDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDRRRRRRRRR
1 0 0 1 0 1 RIN|22111111119876543210IIIIIIII
|109876543210 NNNNNNNNN
|DDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDRRRRRRRRR
1 0 0 1 1 1 RIN|2111111119876543210IIIIIIII
|09876543210 NNNNNNNNN
|
|DDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDDRRRRRRRRR
1 0 1 0 0 1 RIN|1111111119876543210IIIIIIII

```

CFC1101A

SHIFTER

CFC1101A

							9876543210	NNNNNNNNNNNNNNNNNNNNNN
							DDDDDDDDDDDDDDDDDRRRRRRRRRRRRRRRRRRRRRR	
1	0	1	0	1	1	RIN	1111111119876543210IIIIIIIIIIIIIIIIIIIIII	
							876543210	NNNNNNNNNNNNNNNNNNNNNN
							DDDDDDDDDDDDDDDDDRRRRRRRRRRRRRRRRRRRRRR	
1	0	1	1	0	1	RIN	1111111119876543210IIIIIIIIIIIIIIIIIIIIII	
							76543210	NNNNNNNNNNNNNNNNNNNNNN
							DDDDDDDDDDDDDDDDDRRRRRRRRRRRRRRRRRRRRRR	
1	0	1	1	1	1	RIN	111111119876543210IIIIIIIIIIIIIIIIIIIIII	
							6543210	NNNNNNNNNNNNNNNNNNNNNN
							DDDDDDDDDDDDDDDDDRRRRRRRRRRRRRRRRRRRRRR	
1	1	0	0	0	1	RIN	1111119876543210IIIIIIIIIIIIIIIIIIIIII	
							543210	NNNNNNNNNNNNNNNNNNNNNN
							DDDDDDDDDDDDDDDDDRRRRRRRRRRRRRRRRRRRRRR	
1	1	0	0	1	1	RIN	111119876543210IIIIIIIIIIIIIIIIIIIIII	
							43210	NNNNNNNNNNNNNNNNNNNNNN
							DDDDDDDDDDDDDDDDDRRRRRRRRRRRRRRRRRRRRRR	
1	1	0	1	0	1	RIN	11119876543210IIIIIIIIIIIIIIIIIIIIII	
							3210	NNNNNNNNNNNNNNNNNNNNNN
							DDDDDDDDDDDDDDDDDRRRRRRRRRRRRRRRRRRRRRR	
1	1	0	1	1	1	RIN	1119876543210IIIIIIIIIIIIIIIIIIIIII	
							210	NNNNNNNNNNNNNNNNNNNNNN
							DDDDDDDDDDDDDDDDDRRRRRRRRRRRRRRRRRRRRRR	
1	1	1	0	0	1	RIN	119876543210IIIIIIIIIIIIIIIIIIIIII	
							10	NNNNNNNNNNNNNNNNNNNNNN
							DDDDDDDDDDDDDDDDDRRRRRRRRRRRRRRRRRRRRRR	
1	1	1	0	1	1	RIN	19876543210IIIIIIIIIIIIIIIIIIIIII	
							0	NNNNNNNNNNNNNNNNNNNNNN
							DDDDDDDDDDDDDDDDDRRRRRRRRRRRRRRRRRRRRRR	
1	1	1	1	0	1	RIN	9876543210IIIIIIIIIIIIIIIIIIIIII	
								NNNNNNNNNNNNNNNNNNNNNN
							DDDDDDDDDDDDDDDDDRRRRRRRRRRRRRRRRRRRRRR	
1	1	1	1	1	1	RIN	876543210IIIIIIIIIIIIIIIIIIIIII	
								NNNNNNNNNNNNNNNNNNNNNN