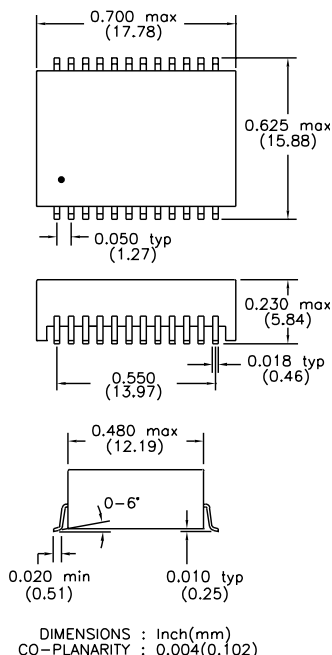


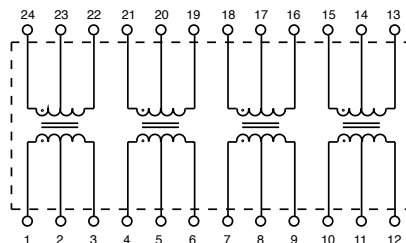
HALO Electronics is pleased to introduce the Duet™ and Duet+™ series of Dual Port Line Interface Modules for real estate sensitive T-1, E-1, PRI ISDN and CEPT applications. Designed to meet the requirements of G.703. UL60950 and EN60950 recognized. Isolation Modules are available for most Line Interface IC manufacturers' products. Non-standards are available.



### NZ Package



### Schematic



### Electrical Specifications @ 25°C

|                          |              |
|--------------------------|--------------|
| Isolation Voltage:       | 1,500Vrms    |
| OCL:                     | 1.5mH Typ.   |
| PRI DCR:                 | 0.8Ω Max.    |
| LL:                      | 0.5μH Max.   |
| Cw/w:                    | 35pF Max.    |
| Crosstalk (0.1- 10 MHz): | -60dB Typ.   |
| Operating Temp. Range:   | -40 to +85°C |

### Patented Construction

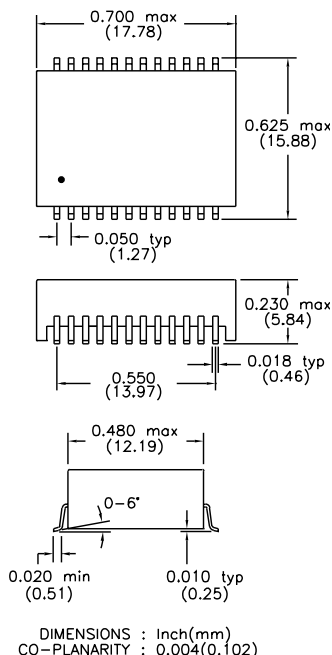
|              |              |              |
|--------------|--------------|--------------|
| US Pat Nbrs: | 5,656,985    | 6,297,721 B1 |
|              | 6,297,720 B1 | 6,320,489 B1 |
|              | 6,344,785 B1 | 6,662,431 B1 |

| Part Number   | Turns Ratio (±2%) |            | Primary Pins |               |
|---------------|-------------------|------------|--------------|---------------|
|               | TX                | RX         | TX           | RX            |
| TG08-1505NZRL | 1CT:2CT           | 1CT:2CT    | 4-6 & 10-12  | 1-3 & 7-9     |
| TG23-1505NZRL | 1CT:2.42CT        | 1CT:2.42CT | 4-6 & 10-12  | 1-3 & 7-9     |
| TG24-1505NZRL | 1CT:1.36CT        | 1CT:1.36CT | 4-6 & 10-12  | 24-22 & 18-16 |
| TG26-1505NZRL | 1CT:2CT           | 1CT:2CT    | 1-3 & 10-12  | 21-19 & 18-16 |
| TG27-S004NZRL | 1CT:1.36CT        | 1CT:2CT    | 4-6 & 10-12  | 24-22 & 18-16 |
| TG28-1505NZRL | 1CT:1.36CT        | 1CT:1CT    | 4-6 & 10-12  | 24-22 & 18-16 |
| TG37-S002NZRL | 1CT:1.14CT        | 1CT:1.14CT | 4-6 & 10-12  | 24-22 & 18-16 |
| TG38-1505NZRL | 1CT:1.15CT        | 1CT:1.15CT | 4-6 & 10-12  | 1-3 & 7-9     |
| TG42-1505NZRL | 1CT:1.41CT        | 1CT:1.41CT | 1-3 & 10-12  | 21-19 & 18-16 |
| TG63-1505NZRL | 1CT:1.15CT        | 1CT:2CT    | 4-6 & 10-12  | 24-22 & 18-16 |
| TG63-S002NZRL | 1CT:1.15CT        | 1CT:2CT    | 4-6 & 10-12  | 1-3 & 7-9     |
| TG73-1505NZRL | 1CT:2.3CT         | 1CT:1CT    | 4-6 & 10-12  | 24-22 & 18-16 |
| TG74-1505NZRL | 1CT:2CT           | 1CT:1CT    | 4-6 & 10-12  | 24-22 & 18-16 |
| TG80-1505NZRL | 1CT:2.45CT        | 1CT:2.45CT | 4-6 & 10-12  | 24-22 & 18-16 |
| TG91-1505NZRL | 1CT:2.4CT         | 1CT:1CT    | 1-3 & 10-12  | 21-19 & 18-16 |

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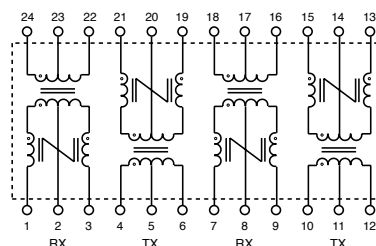
### NZ Package



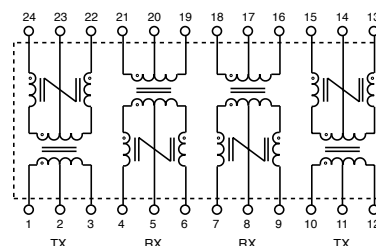
### Patented Construction

US Pat Nbrs: 5,656,985 6,297,721 B1  
6,297,720 B1 6,320,489 B1  
6,344,785 B1 6,662,431 B1

### Duet+ Schematic A



### Duet+ Schematic B



### Electrical Specifications @ 25°C

|                          |              |
|--------------------------|--------------|
| Isolation Voltage:       | 1,500Vrms    |
| OCL:                     | 1.5mH Typ.   |
| PRI DCR:                 | 0.8Ω Max.    |
| LL:                      | 0.5μH Max.   |
| Cw/w:                    | 35pF Max.    |
| Crosstalk (0.1- 10 MHz): | -60dB Typ.   |
| Operating Temp. Range:   | -40 to +85°C |

| Part Number   | Turns Ratio (±2%) |            | Schematic | PRI Pins    |               |
|---------------|-------------------|------------|-----------|-------------|---------------|
|               | TX                | RX         |           | TX          | RX            |
| TG36-1505NZRL | 1CT:1.15CT        | 1CT:1.15CT | A         | 4-6 & 10-12 | 1-3 & 7-9     |
| TG43-1505NZRL | 1CT:1.41CT        | 1CT:1.41CT | B         | 1-3 & 10-12 | 21-19 & 18-16 |
| TG48-1505NZRL | 1CT:2CT           | 1CT:2CT    | A         | 4-6 & 10-12 | 1-3 & 7-9     |
| TG75-1505NZRL | 1CT:2CT           | 1CT:1CT    | A         | 4-6 & 10-12 | 24-22 & 18-16 |
| TG85-1505NZRL | 1CT:2CT           | 1CT:2CT    | B         | 1-3 & 10-12 | 4-6 & 7-9     |
| TG85-S002NZRL | 1CT:2CT           | 1CT:2CT    | B         | 1-3 & 10-12 | 21-19 & 18-16 |
| TG93-1505NZRL | 1CT:2.42CT        | 1CT:2.42CT | A         | 4-6 & 10-12 | 1-3 & 7-9     |
| TG96-1505NZRL | 1CT:2.3CT         | 1CT:1CT    | A         | 4-6 & 10-12 | 24-22 & 18-16 |
| TG97-1505NZRL | 1CT:1.36CT        | 1CT:2CT    | A         | 4-6 & 10-12 | 24-22 & 18-16 |
| TG98-1505NZRL | 1CT:1.36CT        | 1CT:1CT    | A         | 4-6 & 10-12 | 24-22 & 18-16 |
| TGSP-S225NZRL | 1CT:2.4CT         | 1CT:1CT    | B         | 1-3 & 10-12 | 21-19 & 18-16 |
| TGSP-S281NZRL | 1CT:1.15CT        | 1CT:2CT    | A         | 4-6 & 10-12 | 1-3 & 7-9     |